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RAILWAY AGE

THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

FREIGHT TRAFFIC ISSUE

JULY 2, 1951

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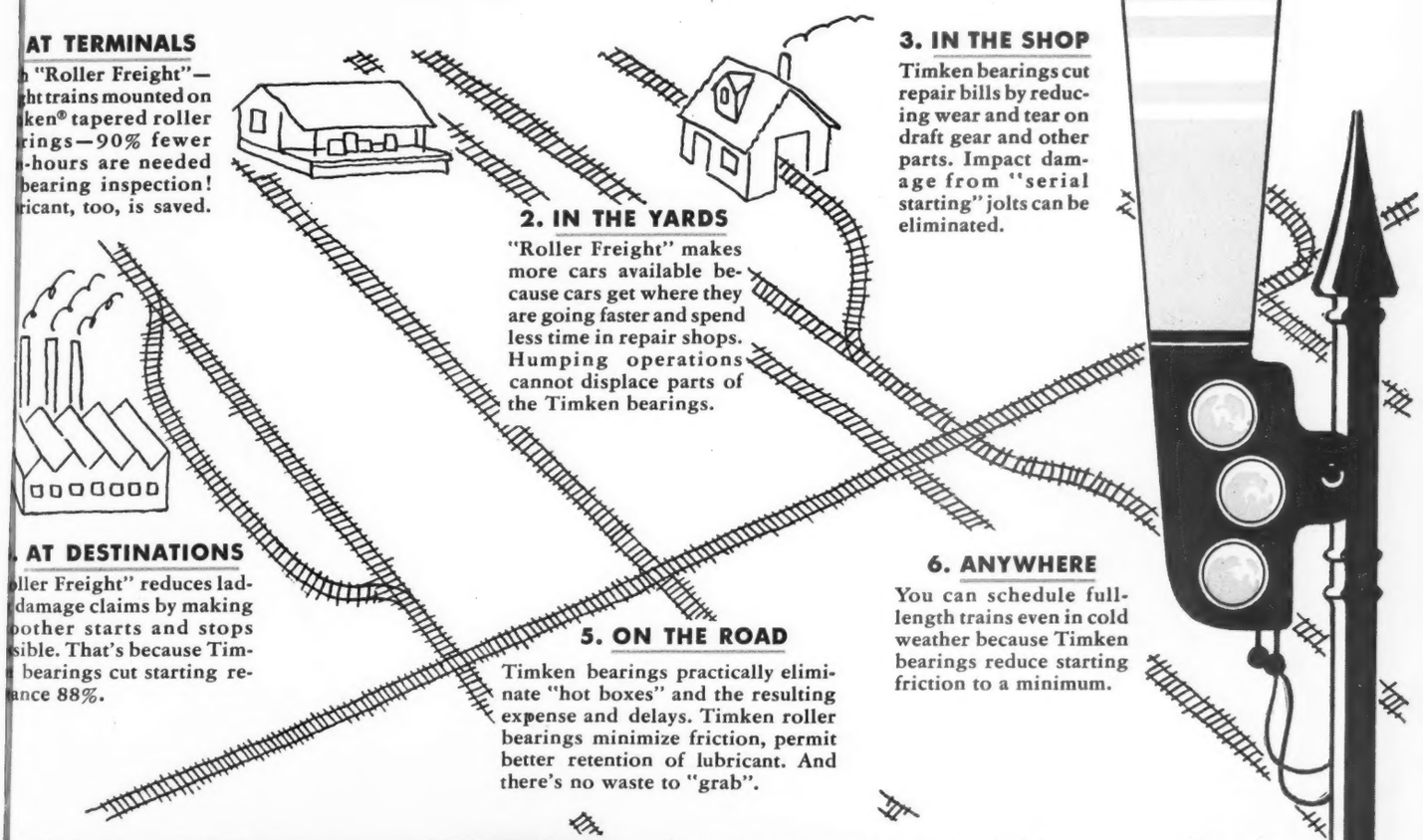
"Roller Freight" clears the track for ...wer operating costs—*all along the line!*



...AT TERMINALS

...h "Roller Freight"—...ght trains mounted on ...ken® tapered roller ...rings—90% fewer ...-hours are needed ...bearing inspection! ...ricant, too, is saved.

2. IN THE YARDS

"Roller Freight" makes more cars available because cars get where they are going faster and spend less time in repair shops. Humping operations cannot displace parts of the Timken bearings.

3. IN THE SHOP

Timken bearings cut repair bills by reducing wear and tear on draft gear and other parts. Impact damage from "serial starting" jolts can be eliminated.

...AT DESTINATIONS

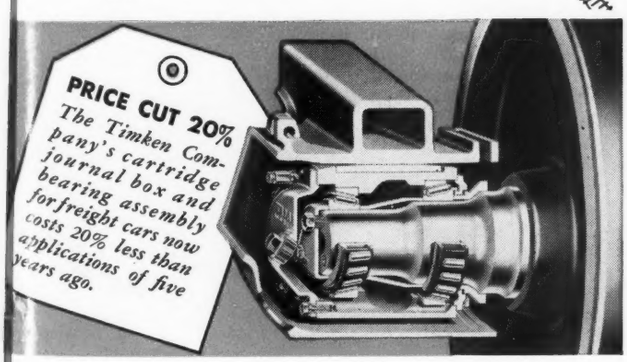
...oller Freight" reduces lad...damage claims by making ...nother starts and stops ...sible. That's because Tim... bearings cut starting re...ance 88%.

5. ON THE ROAD

Timken bearings practically eliminate "hot boxes" and the resulting expense and delays. Timken roller bearings minimize friction, permit better retention of lubricant. And there's no waste to "grab".

6. ANYWHERE

You can schedule full-length trains even in cold weather because Timken bearings reduce starting friction to a minimum.


PRICE CUT 20%
The Timken Company's cartridge journal box and bearing assembly for freight cars now costs 20% less than applications of five years ago.

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Besides cutting operating costs, "Roller Freight" offers you another major advantage. It will give you a big, competitive talking point with shippers in your bid for a greater share of tomorrow's freight tonnage. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".

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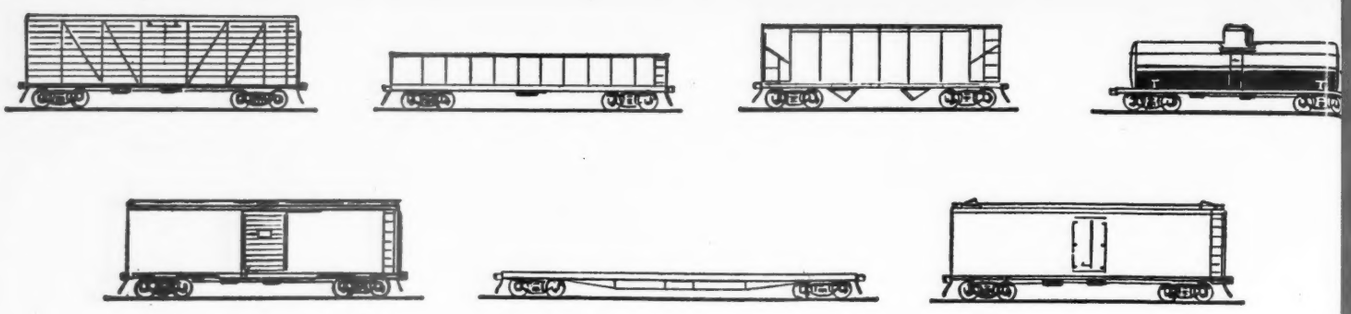

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Vol. 131, No. 1 July 2, 1951

RAILWAY AGE

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SPEEDS TRAIN ROUTING at WESTCHESTER YARD

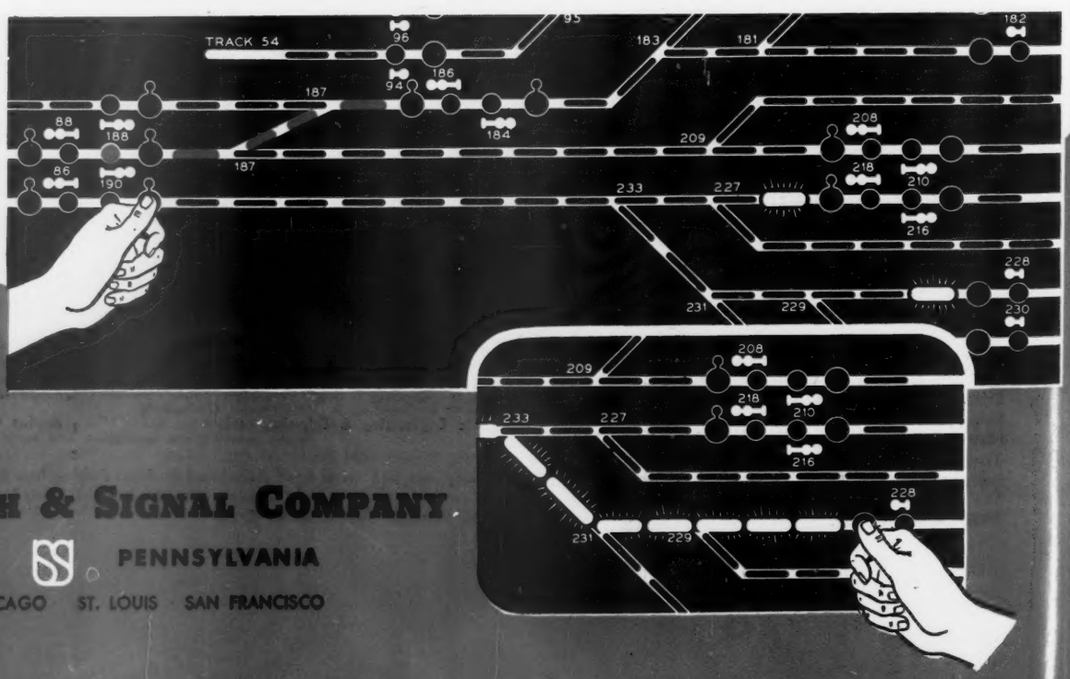
At the New York Board of Transportation's Westchester Yard, traffic density during rush hours reaches 40 trains per hour on the two local main tracks, and 20 trains per hour on the express track.

With such close headways . . . and due to the large size and complexity of the track layout . . . route interlocking was chosen as the fastest, most efficient means of routing trains between the main track and the 48 yard tracks.

The "Union" UR Interlocking installed at Westchester provides exceptional operating simplicity. Complicated routes can be established with maximum speed, and train delays are minimized.

This "Union" UR Interlocking is the largest route interlocking in the world . . . includes 60 home signals, 11 approach signals, 51 dwarf signals and 75 switches. But remember . . . UR Interlockings may also afford outstanding advantages at the smallest layouts, where the simplicity of operation may make part of the operator's time available for other duties. Ask any of our district offices for detailed information and recommendations.

To set up a route, the operator merely presses a button corresponding to the signal where the train enters the route, and another corresponding to the leaving point.



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WEEK AT A GLANCE

CURRENT RAILWAY STATISTICS

Operating revenues, four months
1951 ..... $ 3,291,407,326
1950 2,699,118,465

Operating expenses, four months
1951 ..... $ 2,603,818,978
1950 2,184,811,989

Taxes, four months
1951 ..... $ 375,073,455
1950 273,060,070

Net railway operating income, four months
1951 ..... $ 245,567,067
1950 186,038,345

Net income, estimated, four months
1951 ..... $ 147,000,000
1950 95,000,000

Average price railroad stocks
June 26, 1951 ..... 50.08
June 27, 1950 ..... 39.93

Car loadings, revenue freight
24 weeks, 1951 18,262,847
24 weeks, 1950 16,291,259

Average daily freight car surplus
Week ended June 23, 1951 23,377
Week ended June 24, 1950 3,918

Average daily freight car shortage
Week ended June 23, 1951 9,577
Week ended June 24, 1951 16,887

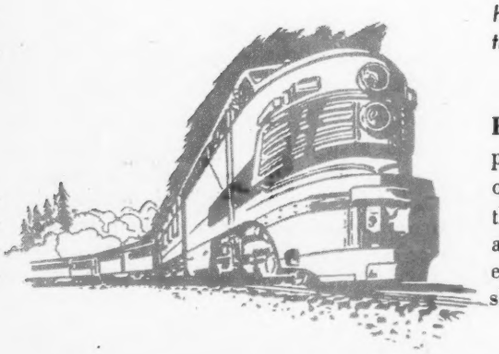
Freight cars delivered
May 1951 9,774
May 1950 2,193

Freight cars on order
June 1, 1951 150,628
June 1, 1950 42,300

Freight cars held for repairs
June 1, 1951 94,038
June 1, 1950 133,936

Average freight car turn-around time, days
May, 1951 ..... 14.78
May, 1950 ..... 15.34

Average number railroad employees
Mid-May 1951 1,291,172
Mid-May 1950 1,135,064



In This Issue . . .

SIMPLIFICATION HEADACHES: "The benefits to be derived from simplification [of freight tariffs] are obvious to one and all." But the problem of how to obtain the simplification is a major headache, which can only be cured by joint action by all concerned — railroads, shippers, regulators and legislators. So says Fred Carpi, in a specially written article starting on page 41, in which he examines some of the underlying causes of today's tariff complexities.

IN THE WEEK'S NEWS: June equipment commitments total nearly $100 million, with additional orders and inquiries reported this week.—Fraser asks "more and better" support from shippers.—Gurley sees danger in inadequate steel allocations.—New Haven to spend $14 million on improvements.—C.N. plans equipment buying on five-year basis.

CAUSE FOR CONCERN: Floors of all types are so common that they don't ordinarily get much attention. But when they are in freight cars, and subject to the heavy loads being placed in such cars today, then they have to be considered. Box, flat and gondola car floors alike present an acute problem, of concern both to railroads and to shippers. The nature of the problem, and some suggestions as to what to do about it, are discussed on page 56.

ORE FOR THE FURNACES: What is believed to be the first completely modern installation of its type built by a common carrier on the eastern seaboard — the new $5-million B. & O. ore pier at Baltimore — is described and fully illustrated in a special article by C. E. Sloan, which begins on page 36.

FOR BETTER L.C.L. SERVICE: Twelve specific suggestions for improvement of railroad l.c.l service are set forth in detail in the specially written article which starts on page 44. The author, whose experience entitles him to speak with authority on the subject, is Harold T. Reed, general traffic manager of the Line Material Company.

PASSENGERS PROFITABLE: Without including retroactive mail pay, the Chicago & Eastern Illinois has come up with an I.C.C. passenger operating ratio of 95.7 for the year 1950. When back mail pay is thrown in, the ratio drops to 84.89. Offhand, this would appear to be about the lowest ratio of any Class I carrier in the country; it certainly entitles the C. & E. I., along with the New Haven (97.04), to membership in the exceedingly select "Below 100" club. Some of the factors

WEEK AT A GLANCE

behind the C. & E. I.'s passenger ratio are given on page 51, toward the end of an article, starting on page 48, which describes various phases of the road's well-rounded and successful program for building up its traffic and its revenues.

In Washington . . .

BROTHERS REJECT WAGE PROPOSAL: The general chairmen of the B. of L. E., the B. of L. F. & E. and the O. R. C., meeting at Washington, have again rejected a wage and rules proposal submitted by railroad management. The rejected settlement proposal was similar to the one recently accepted by the Trainmen, but the other "ops," for reasons apparently known to them alone, won't take it. British railway men, under government ownership, have found that the railroads can be bled only so far; it might be well if the lesson were heeded in this country.

WASHINGTON BRIEFS: I.C.C. lets American Trucking Associations intervene in Ex Parte 175.—One Senate committee adopts report on wage dispute as another begins hearings on New Haven.—More roads get amortization certificates.—Gass says 10,000 new cars per month will add about 4,000 to available supply.—I.C.C. orders truckers to lift tobacco rates to rail level.—Equitable plan equipment rent will become operating expense under I.C.C. ruling.

EQUIPMENT SHOW IN '53: As reported in the news pages, the U. S. National Commission in the Pan American Railway Congress met on June 26 to plan for the 1953 Congress, in Washington and Atlantic City — with meetings at the latter point to be featured by an exhibit of railroad supplies and equipment.

HAROLD J. McKENZIE, who became president of the St. Louis Southwestern on July 1, succeeding Col. F. W. Green, who retired on that date. Mr. McKenzie, whose railroad career, along with Col. Green's, is reviewed on pages 63 and 64, is believed to be the first railroad president who has taken the Harvard Business School's Advanced Management Program, described in the April 9 Railway Age

. . . And Elsewhere

END OF FREE P. U. & D.? Under a proposal now being considered by eastern railroads, free pickup and delivery service would be abolished on intra-territorial traffic moving less than 300 miles, and on all inter-territorial traffic. Separate charges for pickup and delivery of such traffic would be established at all stations where the service is available, the charges to vary with the cost of service at each point. Intra-territorial traffic moving over 300 miles would still receive free p. u. & d., but the minimum rates for such free service would be increased.

GOING UP AGAIN: Some of the railroads providing commutation service to and from New York City plan to file petitions for further suburban fare increases within the near future.

WHY NOT? The Pennsylvania, led by its president, W. L. Franklin, is reported to be moving toward agreements with other eastern carriers, to the end that roads with inferior service to points reached by two or more lines would abandon that service, leaving only the "best service" route accepting freight for those points.

TRAILERS ON FLATS— A "MARRIAGE OF CONVENIENCE"?

Today, probably more than ever before, individual railroads are giving serious study to the movement of highway truck-trailers on flat cars. At least three roads are currently moving, in regular daily service, a substantial number of trailers for the account of independent highway operators. At least three other lines are regularly moving trailers for their own trucking subsidiaries. It cannot be said that this alliance has arisen from mutual affection on the part of the two agencies of transport. For that reason, as much as any other, the project has been, and is being, opposed on many railroads which ought to be able to generate a large traffic in the movement of truckers' trailers. It might be profitably recalled that not all alliances of mutual advantage are contracted for reasons of affection—there are also what the French call "marriages of convenience."

Idea Old; Field New

There is nothing new about the idea of moving highway equipment on railroad cars, as was indicated in a review published in the November 4, 1950, issue of this paper. The fact that past experiments in this direction were not successful is being used as an argument against renewed experiments today. But this argument overlooks the point that most of the experiments of the Twenties and Thirties concentrated upon "gadgets." Too many of them depended upon special equipment of one kind or another which was acceptable neither to the railroads nor the trucking industry. More important, the promoters seemed to think that the whole problem was solved, once they had devised equipment which was physically workable. The fact was and is, however, that the real problem is institutional rather than physical—and lies in contriving rates and services which will attract traffic from independent and competing highway operators, in sufficient regular quantity to produce profits.

Those who argue from past failures also neglect to recognize that the trucking business has vastly changed in the past ten or twenty years. Its traffic volume is many times larger; hauls are much longer. More important, the size and weight of vehicles have at least doubled, and the "breakeven" point for a profitable trip and load has greatly increased. Finally, highway congestion is much worse. Thus, economic incentives for highway operators to use rail service—absent for the most part twenty years ago— are probably much stronger today. This is attested by the fact that most of the pressure in behalf of trailers-on-flats service comes from the truckers themselves.

It is this very interest displayed by the truckers in the service which influences many railroad traffic and operating officers to be suspicious of its value *to the railroads.* Why, they say, should we set up a fine fast service, at low rates, for our competitors to grow fat upon? Rate men on the railroads fear the movement of highway trailers will break down the class rate structure, and may antagonize the forwarders. Another important argument *against* the service is: How can the railroads prevent the service from becoming a means of raiding traffic from outside their present traffic territories—even if such incursions "across the border" are not their intention?

Today's proponents of a service for trailers do not belittle these arguments. They insist rather, that the advantages to the railroads outweigh the objections. The traffic is now moving by truck anyway. In the absence of a revolution in comparative railroad and truck costs, rate-making and services it is unlikely that much of this traffic will return to the railroads' box cars. Even though, by moving trailers, the railroads get less gross revenue out of the traffic than they would if it were moved directly at the going railroad class and exceptions rates, the fact is that the railroads are getting nothing from the traffic now. Something, as long as it exceeds actual cost, is a great deal better than nothing.

Proponents also maintain that railroads earn more from the movement of highway trailers than would appear at first glance. It is a mistake, they say, to compare car-mile earnings of a trailer flat car directly with

that of a box car carrying "manufacturers and miscellaneous." For one thing, the flat car has no empty mileage (empty trailers must be returned). For another, movement is generally faster and turn-around time much less. On the basis of average revenue per car-day, they assert, the gross earnings from trailer movement compares well with that from carloads of other commodities. Advocates make even more point of *net* earnings. On trailer freight, for example, truckers do the solicitation, the pick-up and delivery and the terminal operation. Unlike most of the early experiments, today's successful operations of trailers-on-flats eliminate expensive freight-house handling, and downtown switching and transferring. Terminal costs, say these proponents, are the big costs on the railroads today and the most unmanageable. They are virtually eliminated in trailers-on-flats service.

The Shippers' Interest

It would appear that the movement of highway trailers on rails is a matter of primary concern only to the railroads and the truckers—since in such movement, the shipper deals only with the highway operator, who, in turn, takes the status of shipper with the railroads. Actually, however, any favorable effect which this operation might have on railroad revenues would help the shippers' pocketbooks in the long run.

Whether a greater number of railroads ought to offer flat car service for the trailers of competing highway truckers is not within the province or capacity of this paper to judge. There are weighty arguments on both sides. The *potentialities* for profitable operation are such, however, that no railroad possessing routes which lend themselves to application of the idea should care to neglect exhaustive study of the situation. Two of the largest roads in the country— both considered "standard setters" in their respective territories—are currently giving the subject the most intensive analysis, and tangible evidence of experimentation should be appearing on their rails in the near future.

LARGEST RAILWAY BUYING EVER

The great efforts the railways are making to prepare themselves to meet whatever demands may be made upon them is in no way better illustrated than by the tremendous buying of equipment and materials that they are doing.

If the trend which prevailed during the first half of 1951 is maintained during the second half they will spend this year (exclusive of fuel) about $3 billion for equipment and materials—the largest amount in any year in history. The previous record of $2,268 million was made in 1948.

These figures are not for *orders* placed during the year, but for equipment and materials actually produced and delivered. The cost of equipment delivered in the year 1950 was approximately $778 million. Estimates made by the railways indicate an increase in this in the first three quarters of 1951 of 41 per cent; and if this increase should be maintained throughout the year, expenditures for equipment in 1951 will be about $1,100 million. Purchases of materials in 1950 were $1,131 million. In the first quarter of 1951 they increased 72.5 per cent which, if continued throughout the year would make them $1,951 million. This added to $1,100 million for equipment would make total purchases from the manufacturing industry slightly more than $3 billion.

Statistics given in an accompanying table indicate how enormously railway buying has increased. In the prosperous period between World War I and the depression, annual purchases of equipment and materials never quite reached $2 billion, and averaged about $1,500 million. They declined during the depression to an average of about $500 million. During World War II they increased, in spite of wartime government restrictions, to an average of about $1,234 million. In the five years immediately following World War II (1946-1950, inclusive) they further increased to an average of $1,871 million. But the estimated increase from $1,900 million in 1950 to about $3 billion in 1951 will be the largest increase in any year in history, excepting, perhaps, in 1923.

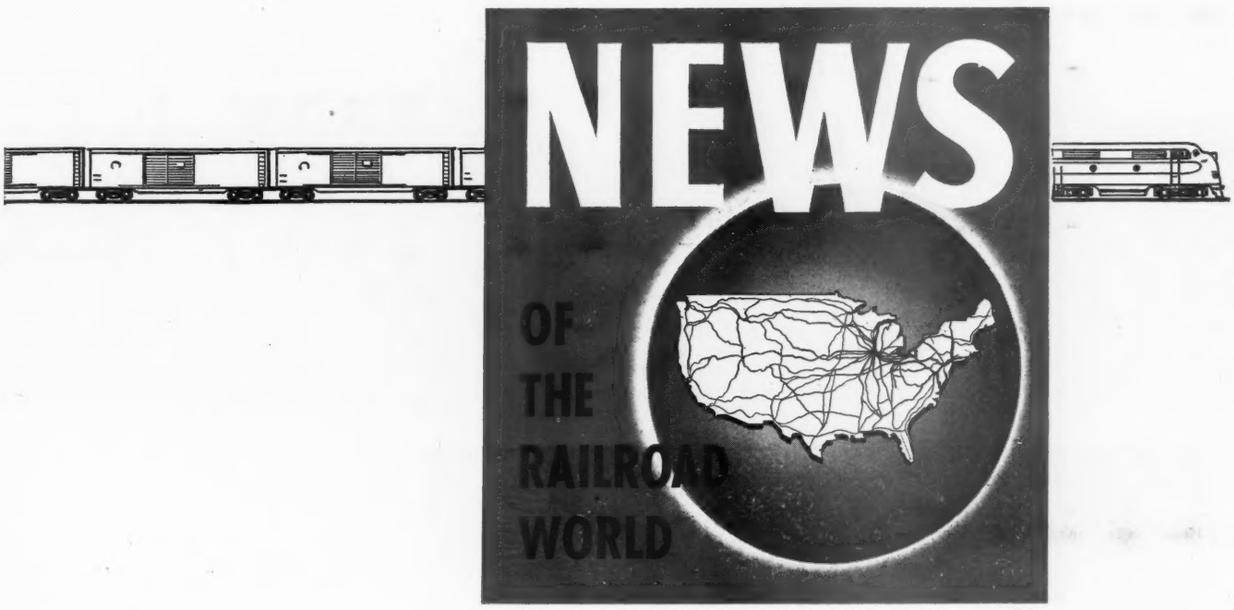
Purchases of equipment are so widely publicized that probably most of those who have never studied the statistics believe that they constitute the bulk of railway buying. But, in fact, purchases of equipment never in any year have equalled purchases of materials, their nearest approach to equality having been in 1949. Materials usually constitute two-thirds to three-fourths of total purchases from manufacturers.

For many years it was possible to show that the volume of purchases of equipment and materials closely paralleled and was determined almost entirely by railway net operating income. How closely net operating income and these purchases paralleled each other is shown by the fact that in the fifteen years ending with 1943 annual net operating income averaged $747 million and purchases of equipment and materials averaged $767 million. But, since then, this relationship has changed completely and purchases have averaged more than $2 for every $1 of net operating income earned, and in 1949 reached an all-time maximum of $3.

The extreme and unprecedented disparity between earnings and purchases that has existed within recent years cannot possibly continue. To maintain expenditures at the current level—which is required in the public interest and for national safety— there is no alternative to a regulatory policy which will permit a large increase in net railway earnings.

RAILWAY PURCHASES OF EQUIPMENT AND MATERIALS

	Equipment	% of total	Materials and supplies	% of total	Total
1929	$321,306	25	$965,143	75	$1,286,449
1930	328,269	31	732,000	69	1,060,269
		Annual Averages			
1931-1935	59,254	15	349,161	85	408,415
1936-1940	200,537	28	527,137	72	727,674
1941-1945	323,187	26	910,783	74	1,233,970
1946-1950	712,350	38	1,158,742	62	1,871,092
1951 (Est.)	1,100,000	36	1,951,000	64	3,051,000



10,000 New Cars Add About 4,000 to Supply

Net monthly gain won't become much greater, Gass says

The monthly gain in freight-car ownership "is not likely to rise much above the 4,000 level so long as the overall construction program is limited to 10,000 cars per month," according to Chairman Arthur H. Gass of the Car Service Division, Association of American Railroads. Mr. Gass made ths prediction in his latest review of the "National Transportation Situation."

He presented equipment data which showed that Class I roads and their car-line affiliates installed 9,274 new freight cars in May, a month in which retirements totaled 5,388 cars. Thus, total ownership as of June 1 showed a net increase of 3,886 cars above the May 1 figure.

Meanwhile, Mr. Gass recalled that the latest of the monthly reports, which are issued jointly by the A.A.R. and American Railway Car Institute, put the total of all May deliveries at 9,774 freight cars. That was an output "closely approximating the 10,000 target set in the steel allocation program," the C.S.D. chairman noted.

He went on to suggest that "more extensive shopping of cars for upgrading and reconditioning" may have accounted for the increase in the number of cars undergoing or awaiting repairs which took place between May 1 and June 1. The suggestion was based on the fact that more cars were given heavy repairs during May than during April. In any event, as Mr. Gass pointed out, the increase in ownership during May more than offset the "slight increase" in the bad-order total; and "the serviceable ownership therefore rose to a point about 41,000 above the corresponding date of 1950."

May's average percentage of freight-car detention was the lowest in 6½ years, the C.S.D. chairman reported. Checks made by car efficiency committees covering 761 communities in all 13 shipper-board districts, indicated that cars detained beyond the free time of 48 hours averaged 13.67 per cent of those placed in May. This compared with April's 13.82. November, 1944's 13.5 per cent was the better record of 6½ years ago.

Average turn-around time of freight cars in May was 14.78 days. That compared with 15.18 days in April and 15.34 days in May, 1950. Back in May, 1948, the average turn-around time was 13.27 days.

Reporting on equipment conditions by types of cars, Mr. Gass noted recent declines in reported box-car shortages and said that there is now "an adequate supply of most classes of box cars to meet current demands." The supply of hopper cars has been "tight" in some sections, but "actual shortages have been very light." The supply of gondolas has been "somewhat short of requirements," especially in sections where heavy construction projects are under way.

As to plain flat cars, "spot shortages crop up frequently," and some shipments have been delayed while awaiting special-type flats. While more covered hoppers could be used if they were available, there have been no "serious shortages" of this equipment, as Mr. Gass put it. Refrigerator car requirements "are being met in all areas," he also reported.

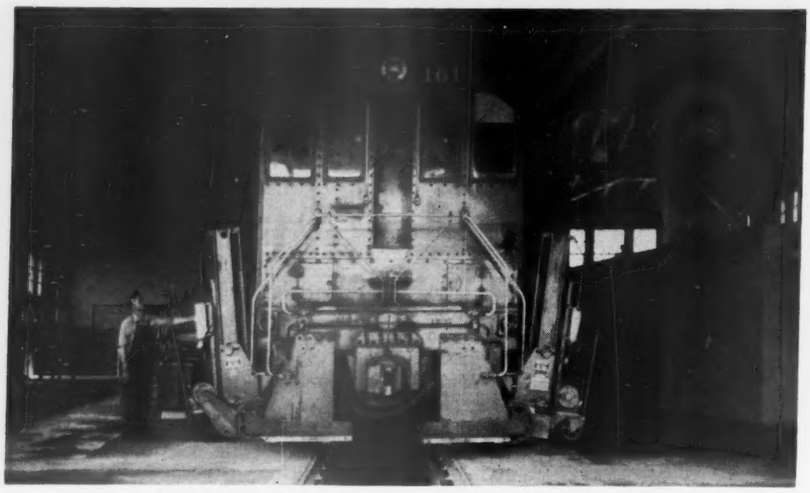
Gurley Deplores Inadequate Steel Allocations

The growing seriousness of inadequate steel allocations and of insufficiently regulated highway competition and their effect on "Home Front Logistics" were the subject of a talk before the Rotary Club of Los Angeles by Fred G. Gurley, president of the Santa Fe, on June 22.

Commenting on the news that fourth quarter steel allocations for railway car builders will be severely curtailed, Mr. Gurley said: "I am apprehensive about this question of inadequate steel allocations. I cannot over-emphasize its importance, and the damage that may flow from an unwise and unrealistic treatment of the question. Despite an encouraging attitude on the part of members of Congress, the fact remains that those who have been selected to make steel allocations have failed to see certain obvious truths about the fundamental role of transportation. If they don't see those obvious truths promptly and do something about it, then we may feel the impact that is implied in the maxim of Poor Richard who described dire happenings 'all for the want of a horseshoe-nail.'"

The financial resources and physical strength of the railroads are essential to their part in "Home Front Logistics," and must, therefore, be watched closely, the Santa Fe president averred.

A part of this problem is "a peculiar



L. V. OPENS DIESEL "SERVICE STATION"

On June 22, the Lehigh Valley opened at Oak Island, Newark, N. J., new diesel facilities designed to service about 26 switchers and 60 road locomotives a month. The main building, 80 feet by 200 feet, is an extension of the enginehouse proper, retaining the two main walls of the steam locomotive roundhouse. Built at a total cost of about $135,000, under the supervision of Henry R. Dallery, superintendent of the bridge and building department, it is shown in the upper left hand corner of this page. Other pictures

American belief that, because something is big, it doesn't need help, but rather it can stand abuse and restriction. It is a paradoxical situation, and its existence is one of the most baffling psychological factors with which we must reckon.

"With rare exceptions, I have no fault to find with our competitors. In light of the fact that the government does not allow free enterprise complete freedom in the transportation field, it is only natural to expect that a competitor will do about what the regulations prescribed by government will permit. One of the exceptions with which I do find fault is the overloading of trucks. The truck owner has no fixed investment in the cost of the highway, and I think that explains why he hasn't been particularly concerned about overloading the highway."

Mr. Gurley outlined three essential factors in the question of adequate railroad finances, physical facilities, and equipment: "(1) Fair policies on the part of government in the regulation of all forms of transportation; (2) a proper rate structure for the services rendered, and (3) intelligent and efficient management of the railroads."

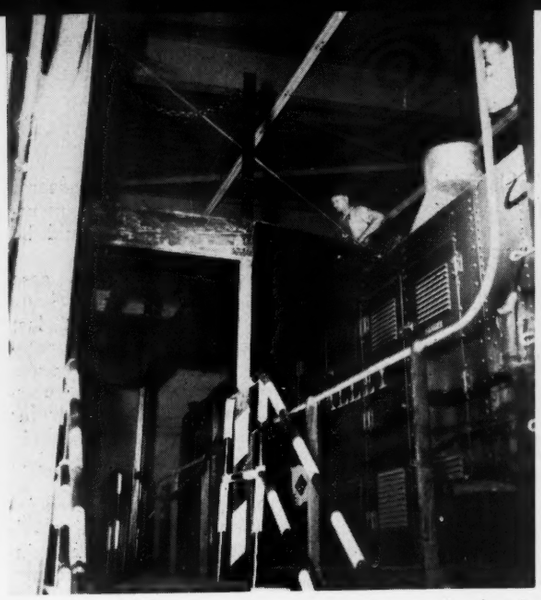
Commenting on railroad costs, Mr. Gurley stated: "I am one of those who think that in some respects our labor costs are higher than they should be in the light of a proper evaluation of the facts and circumstances. I think that in some respects labor has gone 'too far.' But it is fair to say that labor in outside industries has gone 'too far' and this has had its reactions in the ranks of railroad labor."

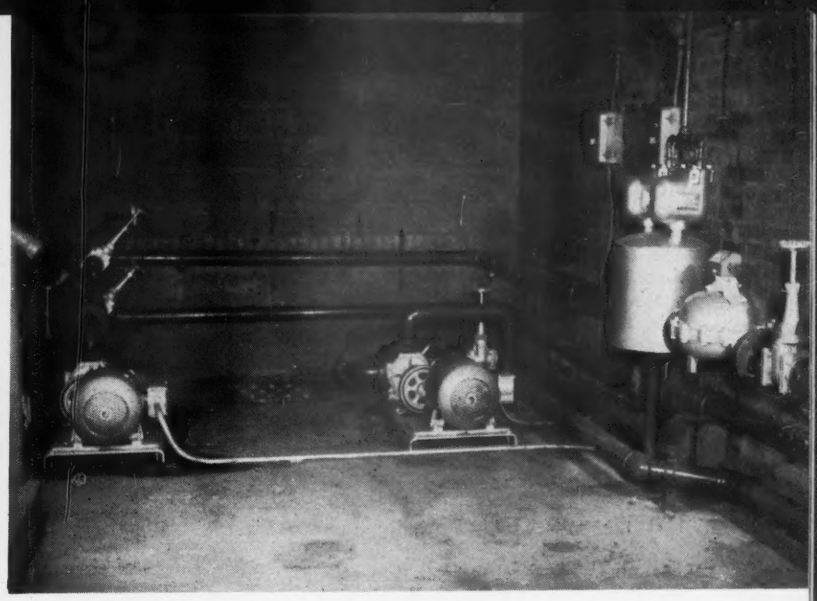
"As our government policies about military activities develop," Mr. Gurley continued, "or perhaps enlarge, it is conceivable that these policies will create other problems for us. Acute questions of manpower may arise. Almost any development may be anticipated, and in that anticipation certain preparations may be made; yet it is difficult, if not impossible, to make detailed plans. It is abundantly clear to me, however, that there must be strength and capacity in our basic plant. With such a plant, then the managerial know-how of the railroads, which, in my opinion, measures up to the best of American tradition, can make adjustments according to changing circumstances."

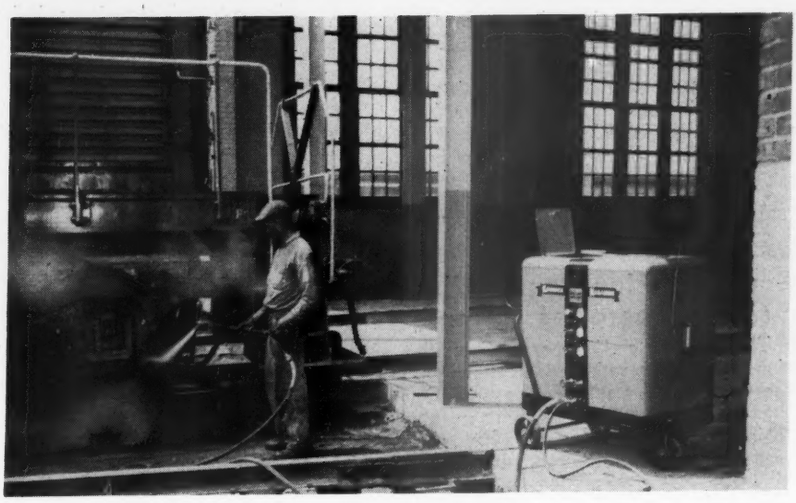
Fraser Asks Shippers for More and Better Support

The railroads must have more support from all shippers, D. V. Fraser, president of the Missouri-Kansas-Texas, told members of the Trans-Missouri-Kansas Shippers' Board and the Traffic Club of Kansas City at their joint luncheon in Kansas City on June 21. "There are many shippers who forsake the railroads for temporary advantages in other types of transport. If the railroads are to provide the constant service improvements desired —and needed—by shippers, and are to provide standby service for when other forms of transport fail, they must have more effective support from shippers in the form of continued patronage."

"We are now at the cross-roads of a great decision—whether railroads, as the greatest single agency for the continuing support of a wholesome







on page 32 show, above, service man leading a lubricating oil line into a locomotive from an Erie Meter Systems "service station" in the foreground; and, left below, a diesel switcher being jacked up by four Whiting portable jacks (two visible), which can be operated at the same time by one man. Pictures on page 33 show, upper left, stationary steel work platform, with second-tier collapsible walk leading to the diesel roofs; upper right, interior of lubricating oil pump room; and right below, a Kerrick portable steam generator which generates its own steam for cleaning trucks and other diesel parts

economy, shall be allowed adequate earnings," Mr. Fraser continued. "The railroads operate in a highly competitive world today—and the inequitable rules of the game place them at a great disadvantage. The fact that other agencies of transportation are wresting lucrative traffic from the railroads because of public subsidy and a patronizing public is beside the point in our present planning. The unfair competition is here, and until the situation is corrected by more equitable public policies, a still larger volume of traffic will be diverted."

The seriousness of the situation is somewhat dimmed by booming military and defense traffic, "but the problem is still with us and growing more acute because of the steadily narrowing margin between advancing operating costs and income. Even the slight recession in traffic volume today brings into focus a critical condition."

"While railroad rates have not kept pace with rising costs," Mr. Fraser stated, "a final solution of the railroads' problem cannot rest entirely with higher rates. Additional revenues must also come from other sources—and the only avenues left are greater traffic volume and reduced expenses." Notable progress has been made by railroad managements in reducing costs and increasing efficiency, Mr. Fraser said, as is testified by the fact that today the railroads operate more efficiently and economically than ever before in history; therefore, he emphasized, for the only remaining possible help—increased traffic volume—the roads must look to the shippers.

Following the luncheon meeting, railroad and grain men held their annual open grain forum for discussion of mutual problems in connection with the annual movement of the winter wheat harvest.

"Op" General Chairmen Reject Wage Proposal

General chairmen of the three operating brotherhoods, whose wage and rule cases remain unsettled, have rejected unanimously the management proposal for settlement. The rejection was voted at separate meetings on June 28, the second day of the Washington, D. C., conferences to which the brotherhoods' chief executives had called the general chairmen for the purpose of considering the railroad offer.

These same general chairmen were among those who rejected the settlement embodied in the December 21, 1950, "memorandum of agreement" which was signed at the White House by the chief executives of the four operating brotherhoods.

The railroads have since made a settlement with one of the four—the Brotherhood of Railroad Trainmen (*Railway Age* of June 4, page 60). The other three, whose general chairmen were meeting in Washington last week, are the Brotherhood of Locomotive Engineers, Brotherhood of Locomotive Firemen & Enginemen, and Order of Railway Conductors.

The carrier offer is on the pattern of the settlement reached with the B.R.T. That was embodied in a three-year agreement under which yardmen received a wage increase of 33 cents per hour and roadmen an increase of 18½ cents per hour. The increases included the hourly raises of 12½ cents to yardmen and five cents to roadmen which the Army granted last February. The Army has been operating the railroads since August 27, 1950, when President Truman seized them in the face of a nationwide strike threat posed by the O.R.C. and B.R.T.

After the June 27 sessions of last week's Washington meetings, a spokesman for the brotherhoods said that

their chief executives had taken the day to report to the general chairmen on the status of the wage negotiations. The meetings were scheduled to continue on June 28, and it was at that continued session that the rejection vote reported above was taken.

Meanwhile, the brotherhoods issued a joint statement which referred to the offer as one that reflected a "take-it-or-leave-it attitude" on the part of the carriers. The statement also said:

"From the earliest stages of our negotiation, after returning to Washington in January, it has been clear that the railroads feel wholly secure under the form of seizure that the government is exerting over the various systems. This security is provided by the government for rail management while at the same time the employees are shackled and prevented from using their economic strength. . . .

"Thus it seems that the Administration has singled out our members for purposes that it either cannot or will not make clear. The Administration has stamped the heel of government upon our neck and demanded that we work under sub-standard conditions. . . ."

Equitable-Plan Rent Will Become Operating Expense

The Interstate Commerce Commission has approved modifications of the Uniform System of Accounts for Steam Railroads "so that payments to insurance companies, or others, for lease of cars and locomotives for periods in excess of a year, will be included in net railway operating income if not made under contracts covering lease of road." This was announced in a June 19 notice by I.C.C. Secretary W. P. Bartel.

To accomplish the foregoing purpose, Mr. Bartel explained, the provision for "specific equipment held under lease for one year or more" will be removed from the texts of accounts 509, Income from Lease of Road and Equipment, and 542, Rent for Leased Roads and Equipment. Also, the restriction to equipment leased for less than one year will be removed from the texts of the following accounts: 503, Hire of Freight Cars—Credit Balance; 504, Rent from Locomotives; 505, Rent from Passenger-Train Cars; 506, Rent from Floating Equipment; 507, Rent from Work Equipment; 536, Hire of Freight Cars—Debit Balance; 537, Rent for Locomotives; 538, Rent for Passenger-Train Cars; 539, Rent for Floating Equipment; and 540, Rent for Work Equipment.

Written views or arguments with respect to the matter may be filed with the commission on or before July 20, the Bartel notice also said. It added: "Unless otherwise found necessary after consideration of all representations so received, an order will be entered to make the modifications as outlined above, such order to become effective September 1, 1951."

In its latest annual report the commission discussed the Equitable Life Assurance Society's plan for leasing rolling stock to the railroads. The arrangement, the report said, presents "questions as to its merits for financing a carrier's equipment requirements" and poses "some serious accounting problems which are now under consideration." (*Railway Age*, January 29, page 16.)

Pan American Rail Congress Will See Equipment Show

The Eighth Pan American Railway Congress will be held in June 1953, with some sessions in Washington, D. C., and others at Atlantic City, N. J. At the latter place an exhibit of railroad equipment and supplies will be staged at the same time.

These plans were made at a June 26 meeting of the Congress Association's United States National Commission, which is headed by William T. Faricy, president of the Association of American Railroads. The commission met in Washington with Mr. Faricy presiding.

Out of the meeting came a statement revealing the foregoing plans. They contemplate that the congress will continue for about two weeks, beginning June 12, 1953, with the Washington sessions, which will be held during the first week. The Atlantic City sessions will follow.

The statement also said that "a tentative program for the congress and the formation of an organizing committee were discussed"; and that "recommendations will be made to the Department of State, upon whose authorization the invitation was extended to the organization to hold its next congress in this country." Several hundred delegates from 20 countries in Central and South America are expected to attend.

I.C.C. Lets Truck Group Intervene in Ex Parte 175

Over protests of the railroads and some shipper representatives, Division 2 of the Interstate Commerce Commission last week permitted American Trucking Associations to intervene in the Ex Parte 175 proceeding which involves the railroads' petition for a freight rate increase of 15 per cent. As reported in *Railway Age* of June 25, page 96, the stated purpose of the A.T.A. intervention is "to forestall the use by the railroads of added revenues to finance selective rate cuts that would undermine truck rates."

Railroad opposition to the intervention was expressed by the carriers' chief counsel in the case—E. H. Burgess, who is also vice-president and general counsel of the Baltimore & Ohio. Shipper representatives who also expressed opposition included John S. Burchmore, counsel for the National Industrial Traffic League. Chairman Splawn's ruling in favor of A.T.A. came after the trucking group's general counsel—E. S. Idol—had given assurances that his presentation would be brief.

The public-hearing phase of the case was drawing to a close as this issue went to press. Proceedings at last weeks' sessions included the presentations of intervening government agencies, and cross-examination of witnesses who had been asked to appear for questioning on material included in verified statements which they had filed.

The intervening government agencies include the Economic Stabilization Administration, General Services Administration, Departments of Agriculture, Commerce and Interior, and the Tennessee Valley Authority. Generally the presentations of these agencies were designed to show what would be the "impact" of the proposed increases on the general economy or on specific freight charges in which the agencies are interested.

The commission has set July 9 as the date for oral argument in the case. The proposed 15 per cent increase would be a permanent advance, supplanting the interim-relief increase averaging overall about 2.4 per cent, which was approved by the commission in its March 12 report in the case. (*Railway Age* of March 19, page 69.)

Senate Group Will Open New Haven Hearings July 2

Public hearings in connection with the investigation of the New York, New Haven & Hartford which is being conducted by a Senate interstate commerce subcommittee will be held in Washington, D. C., July 2 and 3. This was announced June 27 by Senator McMahon, Democrat of Connecticut, chairman of the investigating group, which is the Subcommittee on New England Power and Transportation Problems.

The announcement said that persons invited to appear at the hearings include F. C. Dumaine, Jr., president of the New Haven; Patrick B. McGinnis, who is chairman of the board of the Norfolk Southern; and J. J. Hammill, an officer of the Brotherhood of Railroad Trainmen. (*Railway Age* of April 2, page 63.)

Road Charged with Line Extension W/o Certificate

The Interstate Commerce Commission has been advised that an information in three counts was filed June 21 in the United States District Court at Peoria, Ill., against the Chicago, Burlington & Quincy.

This was announced in a June 27 notice issued by I.C.C. Secretary W. P. Bartel, who went on to say that the railroad was charged with "engaging in interstate commerce over an extended line between a point near Lewiston, Ill., and South Liverpool in violation of section 1 (18) of the In-

terstate Commerce Act without having applied for nor obtained a certificate of public convenience and necessity."

The matter was investigated by the commission's Bureau of Inquiry where it was stated, in response to a query, that there had been no previous prosecution of a railroad in a like case for several years.

Senate Committee Adopts Report on Wage Dispute

The Senate Committee on Labor and Public Welfare has adopted a report criticizing White House intervention in railway wage cases, and charging that the government's seizure of the railroads amounts to "legal fiction without substance." The report is that prepared by the committee's staff on the basis of the investigation conducted by the committee (see *Railway Age* of Jun 18, page 59).

Escalator Clauses Call For Cent-Per-Hour Raise

Railroad employees working under agreements with so-called "escalator" clauses became eligible last week for another raise of one cent per hour. The clauses call for quarterly adjustments of one cent per hour for each point of change in the consumer's price index calculated by the Bureau of Labor Statistics.

The May 15 index of 185.4 governed escalator-clause adjustments for the quarter beginning July 1. That index was slightly more than a point above the February 15 index of 184.2 which fixed the escalator-clause factor for the April 1-June 30 quarter.

Freight Car Loadings

Loadings of revenue freight in the week ended June 23 totaled 832,942 cars, the Association of American Railroads announced on June 28. This was an increase of 6,703 cars, or 0.8 per cent, compared with the previous week; an increase of 22,971 cars, or 2.8 per cent, compared with the corresponding week last year; and an increase of 30,001 cars, or 3.7 per cent, compared with the equivalent 1949 week.

Loadings of revenue freight for the week ended June 16 totaled 826,239 cars; the summary for that week, as compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS

For the week ended Saturday, June 16

District	1951	1950	1949
Eastern	144,086	143,841	112,802
Allegheny	170,994	165,231	123,025
Pocahontas	65,397	60,882	21,259
Southern	126,934	124,492	95,392
Northwestern	137,251	125,058	130,038
Central Western	122,807	127,117	113,675
Southwestern	58,770	59,255	53,160
Total Western Districts	318,828	311,430	296,873
Total All Roads	826,239	805,876	649,351
Commodities:			
Grain and grain products	46,137	48,296	53,656
Livestock	6,818	7,283	7,173
Coal	147,453	144,312	36,855
Coke	16,954	14,957	10,112
Forest products	49,428	48,145	39,219
Ore	90,014	79,983	78,986
Merchandise l.c.l.	74,827	82,122	90,674
Miscellaneous	394,608	380,778	332,676
June 16	826,239	805,876	649,351
June 9	813,326	796,041	808,156
June 2	744,644	709,896	698,824
May 26	811,799	780,926	784,824
May 19	809,475	743,313	773,910
Cumulative total 24 weeks	18,262,847	16,291,259	17,289,959

In Canada.—Car loadings for the week ended June 16 totaled 84,874 cars, compared with 86,302 cars for the previous week and 79,878 cars for the corresponding week last year, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Red'd from Connections
Totals for Canada:		
June 16, 1951	84,874	34,108
June 17, 1950	79,878	32,618
Cumulative totals for Canada:		
June 16, 1951	1,878,787	856,999
June 17, 1950	1,712,272	732,895

1949 Statistics Available

The Interstate Commerce Commission has issued its collected "Statistics of Railways in the United States—1949." The volume also includes data for the Pullman Company, electric railways, motor carriers, freight forwarders and private car owners. It was prepared by the commission's Bureau of Transport Economics and Statistics, and may be purchased for $3.50 from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

MORE NEWS ON PAGE 68

Additional general news appears on page 68, followed by regular news departments, which begin on the following pages:

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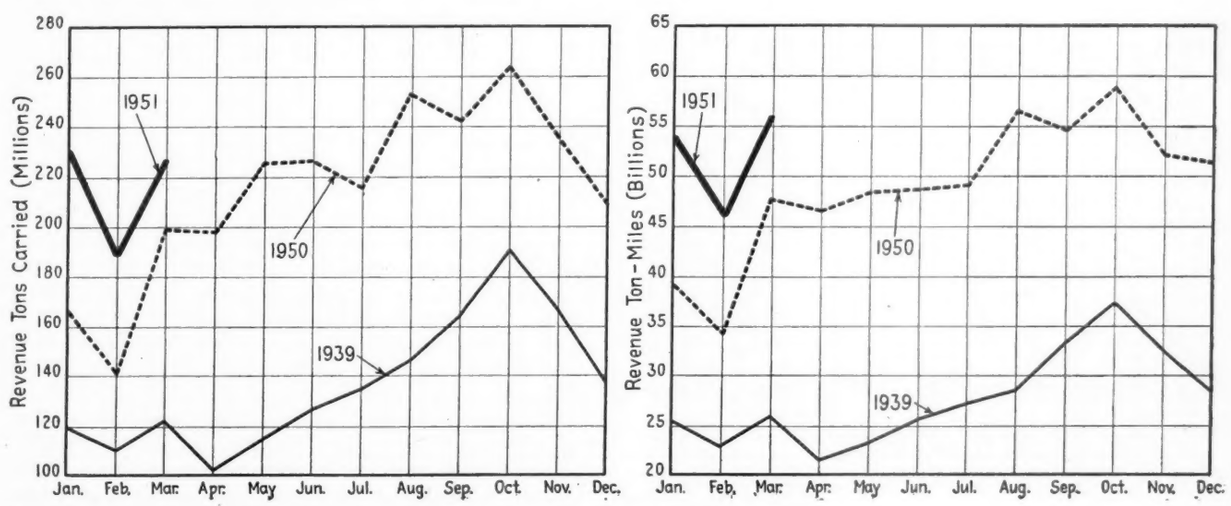
H. & M. Sues I. C. C. on Fare Increase Delay

On the ground that the commission had "unlawfully" suspended a requested fare increase, the Hudson & Manhattan, on June 22, filed action against the Interstate Commerce Commission in United States District Court at New York, asking annulment of an I.C.C. order which prevented the company from increasing its interstate fares between New York City and Jersey City, N. J., and Hoboken from 15 cents to 20 cents.

The commission, the company contends, "unlawfully and in contravention of its general rules of practice," suspended until May 28 the effective date of an increase for which the company had filed a tariff on April 11. Again on May 25, the company alleges, the commission suspended the increase until December 12, and refused to reconsider the suspension order.

(Continued on page 68)



REVENUE TONS AND REVENUE TON-MILES—1951 compared with 1939 and 1950

Here the hinged apron of one of the unloaders is in the raised position to clear rigging on the ship while the unloader is being moved

B. & O. Invests $5 Million in Ore Import Pier at Baltimore

Written exclusively for *Railway Age*

By C. E. SLOAN
Engineer of Bridges
Baltimore & Ohio

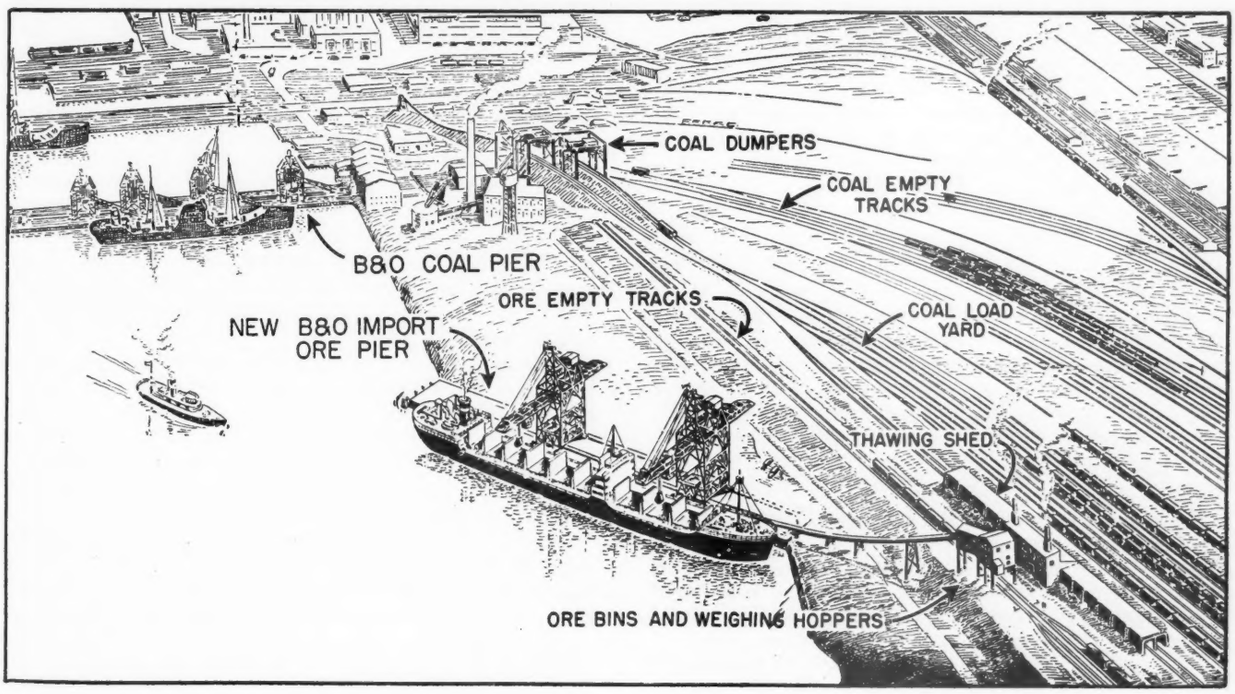
Conveyor-type facility, with two 20-ton traveling unloaders, was built in anticipation of greater importations of basic materials for making steel

The Baltimore & Ohio recently placed in operation at Baltimore, Md., a new pier for the transfer of imported iron ore from ocean-going vessels to railroad cars for movement to inland steel mills. Construction of the new pier is believed to mark the beginning of an important new phase in the steel-making industry in this country. Designed primarily for the rapid unloading of bulk cargo vessels carrying from 22,000 to 40,000 tons of ore, it is the first completely new and modern installation of its kind to be built by a common carrier on the eastern seaboard.

This new $5,000,000 facility consists of a 650-ft. alongshore conveyor-type pier; two 20-ton capacity traveling ore unloaders capable of unloading a cargo of 28,000 net tons to railroad hoppers in 24 hours or, in future, to store it at the site; one 48-in. belt-conveyor system and

Looking down the conveyor incline toward the two traveling unloaders. The belt conveyor is 48 in. wide, 868 ft. long between the centers of the head and tail pulleys

The bucket on one of the unloaders rises from the hold of a vessel with a load of ore which will be emptied into the grill-topped bin in the background



The new pier is located on Curtis Bay at Baltimore adjacent to the road's export coal pier, also a conveyor-type facility, which was built in 1917. Coal hopper cars, emptied at the coal pier, are loaded with ore for the return trip

Left—The man-trolley on one of the unloaders. The balanced trolley travel is 1,000 ft. per min. and the bucket can be hoisted at the rate of 250 ft. per min. Right—The structure in the right foreground contains a 500-ton steel hopper from which the ore is discharged into cars through four heavy-duty manganese steel apron feeders and four scale hoppers

weigh-tower; two car pushers; two 100-ft. floodlight towers; load and yard tracks; and substation, service and maintenance buildings. It required about 14 months to complete after contracts were let.

The decision to build the pier was reached about two years ago, when it became evident that the importation of foreign ores would increase rapidly, as the domestic supplies of high-grade hematite ores of the Mesabi range continued to diminish. Rich deposits of ores have been located in Venezuela, Labrador and Liberia. Large cargoes of ore from Liberia are expected to begin arriving at Baltimore late in the present year, after the completion of ore carriers now under construction. In the meantime, Liberty ships and other smaller vessels will unload their cargoes of iron, manganese and chrome ores at the pier.

The port of Baltimore, with its favorable location nearer to the great steel manufacturing centers of Pittsburgh, Youngstown, Cleveland and Chicago than the other eastern seaboard cities, is well suited to such a ship-to-rail facility.

The new pier is at Curtis Bay, on lower Baltimore harbor. Ore trains will, however, by-pass Baltimore, passing onto the main line about three miles west of it. The pier is adjacent to the railroad's export coal pier, which was built in 1917. As a consequence a large supply of empty coal hopper cars is available for loading with ore for the return trip. A further advantage of the location is that a merger of the operation of the two facilities is feasible to a considerable extent.

Why Conveyor Type Was Selected

The conveyor type of pier was selected after careful consideration of the physical limitations imposed by the site. The load yard tracks of the export coal pier, to which track connection must be made, were more than 25 ft. above the deck of the new pier, both at the site and about 2,500 ft. to the north, where they cross over Patapsco avenue on a four-track bridge, now widened to six tracks as a part of this project. To have built the usual type of pier, with several railroad tracks extending under the ore unloaders, for direct loading of ore into cars, would have required that the approach and yard tracks be on a gradient of at least one per cent. This, together with the fact that the track connection could be made at one end of the pier only, would have constituted a very severe operating handicap. It would also be more difficult and expensive to extend such a pier in the future. The successful operation at this location of the coal pier, a conveyor-type facility, for a period of about 33 years, also had some influence on the selection of the type.

The pier layout was planned for unloading cargoes of 22,000 to 28,000 tons of iron ore from ocean-going carriers now in use or in process of construction. With an increase in channel depth, boats having cargoes up to 40,000 tons could be unloaded. One 26,000-ton carrier has had a partial load removed at the new pier. This boat is 583 ft. in total length, 400 ft. in length overall of the hatches, has a beam of 78 ft. and a draft of 35 ft. when fully loaded. The design contemplates unloading such an ore boat in a little less than 24 hours. This would require the assembling and loading in that time of seven trains of 60 to 65 cars each, averaging 60 tons per car.

The two traveling gantries, which remove the ore from the hatches of the carriers, are equipped with buckets which can take 20 net tons of ore, averaging 200 lb. per cu. ft., at each load in free digging cargoes, and deposit it in a discharge bin mounted on the frame of the unloader over the conveyor, in an average cycle of 45 seconds. From this bin the ore is fed to the 48-in. conveyor belt, which travels the length of the pier and up an incline to a bin in the top of a weigh or loading tower. The ore is then distributed to two weigh hoppers over each of two load tracks, where it is weighed, recorded and deposited in railroad hoppers.

The pier is 650 ft. in length and about 80 ft. in width over the runway foundations. The runways for the unloader rigs are 498 ft. long and 65 ft. center-to-center of the two double lines of 171-lb. runway rails. The front wall is 15 ft. 9 in. wide and 8 ft. 6 in. deep below the pier deck. It is supported on four rows of concrete-filled fluted steel-shell piles 60 ft. long. The inner wall is 10 ft. 6 in. wide on three rows of piles 40 ft. long, the front row of which is driven on a batter of 3 in. in 12 in. These 40-ft. piles were driven to depth, but the 60-ft.

Left—Yards with a capacity of 1,800 cars support the operations at the new import ore pier. Loaded coal cars in the yard at the left will be unloaded at the company's existing coal dumper and then shunted to the ore empty tracks beneath the scale house (center background). The ore empty tracks terminate in the right foreground. Right—Interior of the scale room which is suspended beneath the discharge bin between the scale hoppers. The straight-lever type scale system is equipped with printers that print the gross weight and the weight of undischarged ore on special cards

piles were jetted to final depth through sand, which begins 15 ft. to 30 ft. below the surface mud and clay.

The dredging along the pier was carried to a uniform depth of 39 ft. and this depth of dredging was continued out to join up with the recognized government channel. Material removed amounted approximately to 600,000 cu. yd.

The walls are tied together with 2-in. rods, spaced on 6-ft. centers. These rods have upset ends and two turnbuckles each for adjustment. Deep-web steel sheet piling of the heaviest section, 60 ft. in length, was used in the dock wall. Two 12-in. by 12-in. fender or rubbing strips held between angles along the face of the sheet-pile dock wall are of greenheart timber.

In support of the facility three buildings were constructed on the site. These are a 42-ft. by 50-ft. brick substation, a 40-ft. by 80-ft. concrete-block service building and a 50-ft. by 60-ft. concrete-block maintenance building.

Space for the storage of about 30,000 tons of ore is available on the pier under the cantilever arms of the unloaders. Before this storage space can be used for that purpose, however, it will be necessary to build a pile-supported platform to prevent distortion of the dock wall and of the runways.

If desired in the future this facility can be extended for approximately 600 ft. as an open pier, similar to the adjacent export coal pier. This will permit the placing of two additional ore unloaders, thus providing for the unloading at one time of two large ore carriers, doubling the capacity of the pier, except in the matter of ore storage.

Two load tracks approximately three-quarters of a mile long, including 1,260 ft. of tail-track extension south of the loading tower, were constructed to connect up with the existing yard, located between Patapsco and Chesapeake avenues. A narrow-gage track and third rail, 2,610 ft. in length, were constructed between the load tracks for the two electric car pushers. This pusher track extends the full length of the tail tracks and 1,350 ft. to the north of the load tower. One pusher moves the empty cars along the tail track and under the load tower for loading. The other pushes the loaded cars northward along the 1,350-ft. section for a switch engine to pick up. A passing siding on each track, about 1,500 ft. in length, permits the switch engine with 30 empties to by-pass the loaded cars and to place the empties on the tail-track end. The switcher returns over the passing siding and removes the loaded cars to the supporting yard, returning with empties, to repeat the operation on the other load track and passing siding.

Ore Unloading Towers

The unloading towers are mounted upon and travel along the 498-ft. length of the runways on the pier. Each unloader consists of a traveling structural steel tower, supporting a man-trolley track and discharge bin. The man-trolley, which consists of a frame spring-mounted on four 33-in. wheels equipped with anti-friction bearings, carries the bucket which removes the ore from the hold and deposits it in the 160-ton capacity discharge bin, located 9 ft. back of the front tower leg. The trolley track is 61 ft. above the runway rails, and its length is such as to permit a trolley travel of about 200 ft., consisting of the 65-ft. span between the tower legs, 70 ft. over the ship (60 ft. beyond the pier fender) and 65 ft. over the storage space. The balanced speed of this trolley is 1,000 ft. per minute. The front, or water, end of the cantilever on each unloader is in the form of a hinged apron, which can be raised to clear a ship's rigging when the vessel is being warped into position alongside the pier, or when the unloader is being moved along the pier from one hatch to another.

The operating weight of each tower, with its man-trolley, loaded bucket and 160-ton discharge bin, is 685 tons. Each tower has four legs and each leg is supported on eight 30-in. wheels, traveling on two lines of rail, spaced 2 ft. 6 in. apart. All wheels of each leg are driven by a 33-hp. motor through a worm gear, connected by universal joints and flexible couplings. The speed of travel of the towers is 90 ft. per minute.

Four rail clamps are provided for each tower, and these are capable of holding it against a wind pressure of 40 lb. per sq. in. The setting of the clamps is delayed until the brakes of the travel motors have brought the

tower to rest. Clamps may be set in an emergency at the will of the operator, or automatically through action of an anemometer mounted on top of the tower. At a predetermined wind velocity, the anemometer acts to cut off the current and thereby to set the brakes and apply the clamps.

The top of the 160-ton ore bin is about 27 ft. above the runway rails. Just below the top of the bin is a heavy steel grid, the purpose of which is to screen out any lumps of ore exceeding 15 in. by 15 in. in size.

Located beneath the bin is a heavy-duty manganese steel feeder. The flow of ore from the bin to the feeder is regulated by a ratchet-operated gate. The feeder itself is operated by a 15-hp. variable-speed motor, so that the rate of feed can be varied from a maximum of 1,800 tons per hour for 200-lb. ore down to one-half that amount.

A framework mounted on the feeder supports carries a system of rubber impact idlers arranged to pick up a portion of the conveyor belt and to support and cushion this elevated section on which the ore is laid down by the feeder during loading operations. A special arrangement of chutes, skirts and fingers permits fine material to drop on the belt first, so that it acts as a cushion for the larger lumps.

Three sizes of buckets have been provided for each ore unloader, which have capacities of 200 cu. ft., 120 cu. ft. and 60 cu. ft., respectively. The larger bucket has a nominal capacity of 20 net tons when handling 200-lb. ore. This size of bucket is intended primarily for rapid removal of ore from the more modern vessels, having large-size hatches. The smaller buckets are to be used on the smaller vessels, having restricted hatch openings. The medium-size buckets will also probably be used to a considerable extent in cleaning up the hatches of the large ore carriers. Both medium-size and small-size buckets can be rotated in a horizontal plane, to facilitate entry into small hatches or to dig where unusual space restrictions exist.

The arrangement of the various parts of the trolley makes them readily accessible for inspection, maintenance or replacement. The operator's cab, housing the master switches, is designed to provide the operator with a good view of the buckets at all times.

The raising of the hinged apron is accomplished in four minutes by a 65-hp. motor driving through a speed reducer, a 50-in. single drum, reeved with two ⅞-in. wire cables. When in the fully raised position the apron is automatically latched securely in place. The latching is usually done only when the machine is standing idle for a considerable period.

At the outer ends of the hinged apron and the storage cantilever arm are provided coil-spring buffers to engage the man-trolley. The springs of the buffer have a capacity sufficient to absorb the full energy of the trolley traveling at one-half the balanced speed. A similarly-constructed buffer of less capacity is automatically lowered into position on the storage cantilever arm to arrest the trolley movement when the apron is in the raised position.

Conveyor and Weighing System

The conveyor belt travels at 400 ft. per minute. It has a capacity of 2,000 tons per hour when handling 200-lb. ore. The conveyor, which rises from the level or deck portion on a steel viaduct of beam spans, has a total length of 868 ft. between the centers of the head and tail pulleys, and a lift of 90 ft. 6 in. The viaduct is 370 ft. long and rises at a 16-deg. angle. The belt construction is 9-by-11 stepped ply, of 42-oz. duck, having a tensile strength of 3,500 to 4,000 p.s.i. Weighing about 45,000 lb., the belt was shipped in one piece, and is said by the manufacturer to be the largest single piece of its type ever to be fabricated.

The primary belt drive consists of a 200-hp. motor acting through a speed reducer, located in the drive room at the top of the conveyor-belt incline. The secondary drive is a 100-hp. motor, also acting through a speed reducer. A portion of the drive-house floor is depressed to accommodate these secondary units.

The discharge of ore from the conveyor is into a 500-ton steel hopper located above the drive house. Below the hopper are four heavy manganese-steel apron feeders, identical with those used on the two unloaders, with the exception that they are operated by 15-hp. single-speed motors, instead of variable-speed motors. Each feeder transfers ore from the discharge bin to a spring-mounted scale hopper, having a maximum capacity of 53 tons of 200-lb. ore. The scale hoppers are arranged in pairs 20 ft. apart over each loading track, and are equipped with motor-operated double clam gates, which discharge the ore to railroad cars approximately over the car trucks.

The scale room is suspended beneath the discharge bin, between the scale hoppers. The four scales are of the straight-lever type, two being righthand and two lefthand. A hand mounted on the glass door in front of each dial can be set at any weight to conform to the capacity of the car, and when the weight interceptor hand of the scale reaches this set point it automatically cuts off the power to the motor operating the feeder supplying ore to the twin hoppers.

Each scale is provided with an electric Print-O-Meter. The operator records the gross weight of ore in the hopper on a card, and then discharges the contents of the twin hoppers into a railroad hopper car spotted on the tracks below. A second stamping on the same card then records the weight of any ore which may remain adhering to the sides of the hoppers. This latter weight is subtracted from the gross weight to determine the net weight of ore in the car. Provision is made to operate one of the twin hoppers and its scale at a time, if it is desired to load only one end of the car.

Electric Power and Controls

Power for the operation of the pier equipment is 230-volt direct current. Full magnetic control is used generally throughout the entire system, and safety interlocking and limit-switch protection is provided.

Control of the unloader is from the operator's cab on the man-trolley, where are located the master switches for trolley hoist and travel and for unloader tower travel, together with the means for control of the unloader feeders. Control of the apron hoist is provided at the apron-hoist house, and also at the trolley runway level on the tower. The trolley hoist provides dynamic braking while lowering, with limit-switch protection in the up direction. The trolley travel is equipped with reversing plugging control, with limit-switch slow downs and final stops at either end of the trolley runway, when speeds are excessive. The apron control is interlocked with the trolley position, so that the apron cannot be raised unless the trolley is clear of it, and also clear of the descending movable buffer.

The main conveyor may be stopped and started from the conveyor drive house and from the scale house below, while the unloader feeders may be stopped and started from the man-trolley operator's cab, or from a station on the tower at dock level. The main belt and unloader feeders are interlocked, so that stopping of

the main belt will stop the apron feeders, and prevent their starting unless the main conveyor is running. Colored indicating lights are provided to show the operator whether the unloader feeders are operating, and in case of stoppage of feeders other lights show at what point this stoppage occurs.

At the discharge bin paddle-type bin-limit switches are provided to prevent the ore from overflowing the bin by stopping the unloader apron feeders if the bin still can receive ore remaining on the belt, or by stopping the main conveyor if the discharge bin is full.

Radio telephone, using two channels, permits communication between the weigh house, the two car pushers, one diesel switching engine and the yard office located beyond the Patapsco Avenue bridge. There is also a telephone system between the weigh house, the service building, yard office, substation and belt-drive house. Interphone communication is provided between the track level under the weigh hoppers and the weigh house. Horns are provided to permit signaling between the ore unloading rigs and the weigh house.

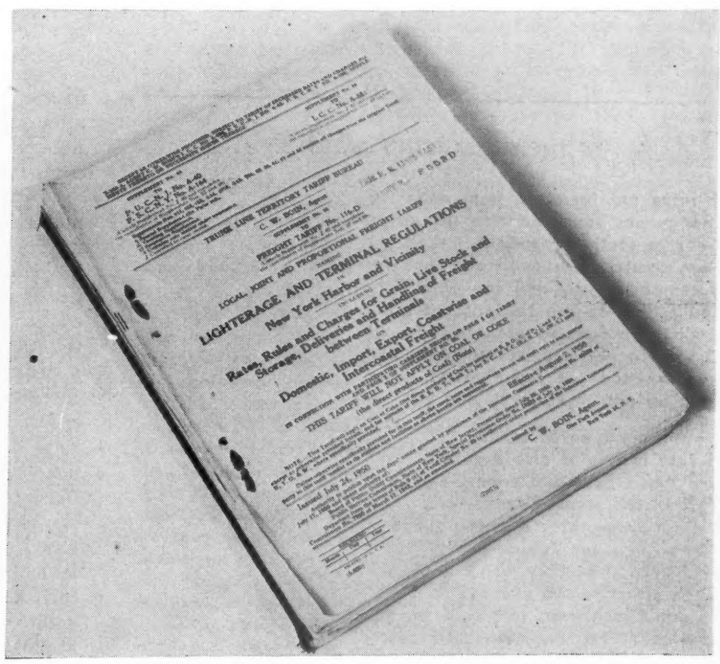
Two 100-ft. floodlight towers provide illumination for the load yard. Floodlights are provided under the weigh hoppers to light the car-loading operations, and also on the unloading towers, to light the area of bucket travel. General lighting is provided along the length of the pier, on the conveyor and throughout the towers.

The entire project was planned and executed by the engineering department of the Baltimore & Ohio. The substructure work was carried out by the Empire Construction Company, Baltimore, as the general contractor. The dredging was performed by the Arundel Corporation and the substation and service buildings were built by the Lacchi Construction Company, both also of Baltimore. The ore unloaders and conveyor system were furnished and installed by Dravo Corporation, Pittsburgh, Pa., under a general contract. The conveyor system was furnished by the Stephens-Adamson Manufacturing Company, Aurora, Ill., as subcontractor.

The general contracts for both substructure and superstructure were let in February 1950 and the facility was formally dedicated on May 15, 1951.

Written especially for *Railway Age*

By FRED CARPI
Vice-President—Traffic
Pennsylvania Railroad


LIGHTERAGE AND TERMINAL REGULATIONS
New York Harbor and Vicinity
Rates, Rules and Charges for Grain, Live Stock and Storage, Deliveries and Handling of Freight between Terminals
Domestic, Import, Export, Coastwise and Intercoastal Freight

This photo is of Agent Boin's lighterage tariff (I.C.C. No. A-881), complete with 44 supplements (to Aug. 7, 1950). The black portion is the spine of the original tariff while the lighter portion is made up of the supplements and is fully as thick as the original. Since this tariff is for the account of all railroads providing lighterage in New York Harbor, a person could spend a lot of time making sure, for example, that he was entitled to free lighterage

How Much Freight Tariff Simplification?

Nearly everyone who has anything to do with freight tariffs, whether he is in the railroad, regulatory or industrial field, thinks that they are too complicated and difficult to interpret and therefore are overly costly to all users, and hence also to the general public. Most *Railway Age* readers are well aware of the fact that today there is under way a joint effort of shippers and carriers to simplify the tariffs and thereby gain economies in the application and publication of rates. While practically everyone agrees that the benefits to be derived from tariff simplification will be substantial, it is practically impossible to do more than indicate where some of these advantages may be, and before we can have even the remotest idea of what such economies might be, it is necessary to understand the causes of the present unsatisfactory situation, which are many and deep rooted.

An understanding of the problem—and particularly of the factors which created it—is a prerequisite to its solution. (In carrier and shipper circles there are differences of opinion as to the relative importance of each

This is the Pennsylvania's rate bureau at Philadelphia. There are a lot of tariffs along the walls and on the various desks, and a lot of them are needed frequently and almost simultaneously so the correct rate may be quoted

THESE CHANGING RATES

If rates are found in item one
That means your work has just begun
Refer to section fifty-four,
Then scratch your head and look for more.
If searching high and low should fail
You'll have to use the mileage scale.
If distance from is greater than
The space between, reverse your plan
And try and get the shortest route
From up and down to in and out.

Section circle seven reads
If rate is less or else exceeds,
Use Tariff Four and twenty-eight,
To find the then effective rate.
But all these rates are now taboo
Except in Item Twenty-two
And even then they won't apply
Until effective bye and bye
So don't look now, just hold the place
And check for thirty days of grace.

Pages nine and ten define
The penalties for out of line
But don't use these, at least not yet,
They might be further on upset.
Two and two should equal four,
But section P might make it more.
K clearly marks the spot,
But some are there and some are not.
So use the rules of common sense,
Except as changed in Supplements.

Betty Beach
Ticket Seller, Maine Central
Waterville, Me.

of these causes, and no purpose would be served by attempting to go into that subject here.) It might be well, therefore, to list the major factors which have contributed to this intolerable situation:

(1) The large increase in the number and kind of commodities which the people of this country consume and use daily. To appreciate this development, you need only examine a tariff in force 75 or 80 years ago. It was not uncommon then to list all of the articles that were accepted for transportation on one page, and quite frequently the rates themselves were shown on the same page. When a drug store received a shipment then, it was almost a foregone conclusion that it consisted of drugs and medicines. Today it might consist of baby carriages, clothing, food or books. Within the lifetime of most of us, there has been developed the airplane, automobile, safety razor, toaster, radio, television and many other articles which are now deemed indispensable to our daily needs. There has resulted a new dictionary of terms that have kept lexicographers busy and added to the printed matter in tariffs. Bulk in freight tariffs does not necessarily mean complexity although it does add to cumbersomeness in application.

(2) The natural growth and the technological advancement of the country. When the railroads were young the territorial sections of the country had clearly defined and specialized economies. The East was industrial, the South and West agricultural. They were not competitive but complementary. Rate structures peculiar to the needs of these territories were independently developed and could not in justice and fairness be lightly discarded as the spread of industry and diversification of agriculture erased sectional boundaries. Meshing these conflicting rate patterns is anything but simple.

(3) The enormous increase in types and volume of traffic gave birth to big business as we know it today. Concurrently, the production problems of large cor-

porations multiplied to such an extent that traffic experts came to be employed as a matter of necessity. It was and is the primary duty of these traffic managers to obtain the lowest possible rates and keep their respective companies on a competitive basis. These developments gave birth to commodity rates and exception ratings which added to tariff bulk and complexity.

(4) The intense competitive struggle among railroads, within industry, and between railroads and other forms of transportation made it necessary for regulatory bodies to prescribe tariff rules, some of which appear highly meticulous, but each had an objective in the correction or prevention of an unfair situation. One example will suffice, and that is the impact of the Fourth Section of the Interstate Commerce Act on our tariffs. The labor cost for conforming to the regulations flowing from the provisions of this part of the act is very great. It has added to tariff volume and contributed to complexity.

(5) The following developments were of gradual growth and have been further complicated in recent years by the Ex Parte increases. The introduction of maxima on many commodities, the departure from general percentage increases and the requirements with respect to combination rates have created new complications in tariff construction.

The Major Responsibility

Railroads must assume the major responsibility for the present mess, but it would be trite, and an untruth, to say that the tariff publishers are solely responsible. They have merely followed orders of the rate-makers. Their efforts towards simplification were thwarted by conditions beyond their control. The only justifiable criticism that might be made of the carriers is their failure to follow any uniform plan. It would also be unfair to place much blame on the regulatory bodies. They simply prescribed rules designed for clarity and equity. The present situation my be summed up by saying that it is the responsibility in varying degree of four groups—the railroads, the regulatory bodies, the legislative bodies and industry. Therefore, any improvement or reform must come from joint action by all of them.

Fortunately, some of the public-spirited members of the National Industrial Traffic League have given much time and thought to the problem. They have sponsored a plan, which if adopted and carried through, should lead us out of the morass. The dream of the rate clerk that he can find the rate he is seeking by merely flipping a page may yet come true. What a relief it would be if you could look at a rate without qualifications such as "if," "except," "and," "but" and "refer to." And as indicated, it would be difficult indeed to say just how much all tariff users and publishers will gain from the simplification. This is simply because it is impossible to tell just how much "simplification" will be achieved.

Some shippers say that due to the complexity of the present tariffs, the productiveness of their rate clerks is only about 50 per cent of what it was say 10 to 15 years ago. That probably is true. One of our freight agents has figured out that his rate clerks, in 1939, used to check between 800 and 1,100 rates each in an eight-hour day. At that time, one clerk was required, part time, to make corrections on these rates, which ran to about nine-tenths of one per cent. Presently, the same men put out about 350 bills each in eight hours, while two outbound correction clerks are necessary to handle the errors, which sometimes run as high as 9 or 10 per cent.

Although largely intangible in nature, the benefits to be derived from simplification are obvious to one and all.

What a Rate Clerk Thinks of Today's Tariffs

[This is a letter from a rate clerk to his boss and is published as written.—Editor]

In my opinion, as well as the opinion of many other rate clerks, I think the parties in charge of publishing tariffs should go further when reissuing tariffs by having the rates in every tariff reissued include all the Ex Parte increases, thus eliminating the use of four other tariffs getting the basic rate. If this were done, it woud not only simplify rate checking but would result in fewer corrections being issued, decrease the number of overcharge claims and be a great blessing also to railroad patrons.

Below is an example of the usual procedure which every rate clerk has to go through to obtain the correct rate to apply on one less-than-carload shipment, which shipment may only mean 100 lb. of tonnage and $2.00 in revenue to the railroads. First, you have to refer to the overall classification (CFC 19), which gives you the classification to any point in the United States, and determine what class the article being shipped will take. Then we must also check the exceptions to this classification, which exceptions tariff we use depending upon where the shipment is going, and find out if the article takes a lower classification than in the CFC 19, and, if so, use it, provided it is cheaper after increasing same under Ex Parte tariffs. (I say that because ratings from CFC 19 take different percentages of increases than do rates from exceptions tariff.) After getting correct class to apply, we must then refer to the proper tariff listing the name of the town to which the shipment is destined, find rate base and the basic rate, which in some cases necessitates the use of a supplement to this tariff (the supplement may be one of a hundred or more) which may increase or decrease the basic rate. These supplements are issued because most class rate tariffs originally were issued some 10 to 15 years previous. After deriving the basic rate we then turn to Ex Parte tariffs (those now in effect are X-162-B, X-166-C, X-168-A and X-175). These Ex Parte tariffs have different tables to use according to territories between which this shipment moves, some increase 20 percent, 25 percent, 22½ percent, etc.

After checking all this, a person is about nuts and ready to fly, yet there is a question in his mind: have they issued a supplement not known to me that makes the Ex Parte increases different? Sometimes, after checking all this and multiplying the weight times the rate we find that the charge is less than the minimum charge for one l.c.l. shipment between the two points.

L.C.L. rates aren't the only ones a rate clerk has to contend with. In checking carload rates there is the problem of whether or not individual carriers or certain freight territories have a tariff naming a specific rate on carload commodity or whether it moves on a class rate. (This is true also on some less-than-carload articles.) If the carload moves on class rate we use same procedure outlined above. Sometimes we run into the matter of combination rates over the Mississippi river, Missouri river or specific points throughout the United States. Here we run into difficulty again as when figuring a combination rate we have to increase each factor separately in the Ex Parte tariffs. Also, there are specific items on some carload commodities in Ex Parte tariffs which take maximum and minimum increases, and different tables of percentages apply.

There is lots more to checking rates than mentioned here, but if I wrote about all it would probably be a book-size volume.

I believe that everyone should work toward the end that in as short a time as possible all tariffs should be reissued to include all Ex Parte increases in effect, which in the long run would save money, time and headaches. If this were done, one rate clerk could check as many rates in one day as three now do and probably with more accuracy. Also, this would tend to cut down the size of forces in the auditor's office, overcharge claim offices and many others. It would even save many a man from going crazy checking rates.

Line Material Company ships a wide diversity of l.c.l., ranging from glass telephone and telegraph line insulators and packaged metal clevises to bazookas

Suggestions for Better L. C. L. Service

Written Exclusively for *Railway Age*

By HAROLD T. REED,
General Traffic Manager, Line Material Company

Harold T. Reed is well qualified to write about less-than-carload freight, having spent 22 years as traffic manager of the Line Material Company of Milwaukee. His company is a large shipper and receiver of all kinds of l.c.l. He is vice-chairman of the board of directors of the National Industrial Traffic League; a member of the league's Executive Committee; chairman of the Traffic Committee of the Wisconsin Manufacturers' Association, and past general secretary of the Mid-West Shippers Advisory Board

During the past two decades, motor carriers, freight forwarders, and air carriers have been handling an ever-increasing proportion of the total volume of l.c.l. merchandise freight, much to the detriment of the railroads. The railroads are left with the "dregs" of the less-than-carload freight while the trucks and air carriers and the freight forwarders run away with the cream. The railroads lose money handling these "dregs," while the others count their profits from the cream. If the railroads want to count l.c.l. profits, they will have to devise some plan or service which will win back to the rails the highly competitive, profitable less-than-carload traffic.

The present situation with respect to railroad l.c.l service dates back to the early 1930's, when rail l.c.l service was slow and cumbersome. At that time, however, it did not come in for severe or intensive criticism, because the contrast with service offered by other carriers was not so pronounced. But today the l.c.l service offered by forwarders (many of them aided and abetted by individual railroads), motor carriers and air carriers has

Screw type anchors and post hole augers are among articles handled at Line Material's Birmingham (Ala.) plant

been so greatly improved as to intensify the shortcomings of railroad l.c.l. service by contrast.

Years ago, the railroads expedited the handling of their local and interline merchandise traffic by means of wholly owned "dispatch," "transportation" and "express" companies. These railroad-owned operations were the forerunners of the independent freight forwarders who are today skimming off the cream of the railroads' less-than-carload traffic.

To realize more revenue from the "dregs" which they have left, the railroads have proposed higher minimums for small shipments (Interstate Commerce Commission Docket No. 29556). This has made a lot of shippers very unhappy. But, higher charges or no, the railroads will never be able to handle this kind of traffic profitably unless they can first find some way to win back the more lucrative merchandise traffic now moving via other means.

Some Good Service

The importance of this problem has been realized by some railroads, which have undertaken to improve their l.c.l. service between larger terminals. Typical are the "Time-Saver Service" of the Baltimore and Ohio, the New York Central's "Pacemaker Service," Pennsylvania's "Keystone Service," the Chesapeake & Ohio's special l.c.l service, and the joint-line services of various eastern railroads. The Illinois Central, Milwaukee, Union Pacific and Wabash have all improved their schedules. Other midwestern, western and southwestern lines have done likewise. Most recently, the Missouri Pacific introduced its "Eagle Merchandise Service" to the southwest.

But dramatic as these improvements have been, much remains to be done. Outside of a few package car routes there still isn't any good *interline* l.c.l. service.

A 12-Point Program

Most railroad merchandise and l.c.l. service is in need of a thorough overhauling. In fact, improvement is imperative if the railroads expect to progress in this highly competitive business. With this thought in mind, the following 12-point program for improving railroad l.c.l. merchandise service is offered:

(1.) Establish a special department for l.c.l. merchandise traffic.

Today railroads think almost exclusively in terms of "carloads." It therefore seems quite reasonable to believe that they will never be successful in the less-than-carload business until they can find some way to get this class of traffic clearly separated from their "carload" business and their "carload" frame of mind. One way of accomplishing this would be for each railroad to establish an organization completely independent of the rest of the road's freight traffic activity to handle the solicitation, pick-up and delivery, motor-carrier contracts, scheduled services, terminal operations, billing and tracing of less-than-carload freight. This group should think in terms of "shipments" and of the needs and require-

Transformers are crated and shipped at the Zanesville, Ohio, plant in accordance with proved techniques—to keep loss and damage claims at a minimum

ments of merchandise traffic. After railroad cars are loaded by this independent l.c.l. merchandise department, they would be turned over to the operating department for movement as carload freight on prearranged schedules. Some railroads have established so-called "merchandise service bureaus" in recent years, but further development and expansion of those bureaus to a departmental status seems to be necessary. To provide liaison and to police the services of the various individual l.c.l. merchandise departments, a Merchandise Division of the Association of American Railroads should be established.

(2.) Extend coordinated railway and highway services.

Substitution of motor trucks for local way-freight service, as is being done on many railroads, materially assists in speeding up l.c.l. movements to and from smaller stations, as well as aiding the carrier in reducing its cost of providing the service. Further, such substitution helps make box cars available on more important runs where heavier loadings are apt to prevail. Such a program is tied in with pick-up and delivery services outside of terminal areas inasmuch as over-the-road trucks can provide this service with very little extra effort.

Any railroad which is seeking certificates for motor operations knows that shipper interest is needed to develop and maintain such a service. Therefore, when public hearings are held by various commissions on route applications, the full cooperation of shipper witnesses is a "must." Generally, shippers and receivers can furnish much valuable testimony for the applicant, because they all know that by helping the railroads provide better service, they help themselves.

(3.) Establish a symbol method of routing and handling merchandise cars.

Prior to the advent of the freight forwarders, some railroads operated merchandise or package-car "dispatch" schedules between principal points via regularly prescribed routes. Some of these fast freight routes were known as "Star Union," "Merchants Dispatch," "Dairy Dispatch," etc. Perhaps a return to a similar form of merchandise dispatch service would help the railroads in their attempt to improve l.c.l. service.

Perhaps a system of symbols for interline or interterminal traffic could be developed to indicate origin and destination terminals, but not the routes over which the cars move. Thus, for example, "CH-NY Blue Streak" would be the symbol route from Chicago to New York, but wouldn't indicate whether the cars move via Pennsylvania, N. Y. C., Nickel Plate, D. L. & W., L. V., Erie or the other possible routes. Or, "DM-CH Red Meteor" might be the symbol for the merchandise cars operating from Des Moines to Chicago over any of the various routes available.

From a symbol routing bulletin or guide, a shipper could choose the route which would best suit his needs, although he would not know the carriers over which the shipment moved, any more than he knows the routes over which his forwarder, express, or parcel post traffic is now moving.

While there has been opposition to any plan requiring a shipper to relinquish the privilege of routing his l.c.l. freight—particularly from those shippers with a large volume of l.c.l. business who are able to load and forward their own package cars—it appears to be diminishing in favor of the better service such an "open" system could make possible. Even large shippers should be able to use the symbol system advantageously. At many large terminals, specific package-car operations are dependent upon certain large shippers' regular movements and could easily be adapted to the symbol-route method.

(4.) Publish more—and uniform—l.c.l. merchandise schedules.

Merchandise package-car schedules, distributed by some railroads for many years, have shown steady improvement during the past few years. However, there still remain opportunities for further improvement. These schedules, with exceptions or notes regarding variations in the services, should be revised and published periodically.

Three improvements would help this program:

(a) Uniformity of terms, services, methods and publication. We read in bulletins and pamphlets distributed by the railroads of "Service Bureaus," "Zone Loading," "Symbols," "Container Services," "Transfer Station Working Schedules," and other references, which are not uniform with all railroads. Likewise the schedules should be prepared and issued in a uniform format.

(b) A general or consolidated schedule, with uniform listings of all merchandise schedules and services within a given area, should be published.

(c) Schedules should show time-in-transit and frequency of operation between all points.

(5.) Provide volume ratings.

A number of years ago, when the railroads started to

compete for motor-carrier merchandise traffic, they established, in some cases, volume rate reductions for larger l.c.l. shipments. This technique should be renewed and revitalized. For example, graduated volume rate reductions of 5 per cent on shipments of 5,000 lb., 10 per cent on 10,000 lb., 15 per cent on 15,000 lb., and 20 per cent on 20,000 lb. might be offered.

Volume ratings ought to be made widespread. It should be cheaper for a railroad to handle one 20,000-lb. shipment than to handle twenty 1,000-lb. shipments. Why not give the shippers an incentive to forward merchandise in larger shipments? Elimination of pick-up and delivery services on volume-rated shipments should be acceptable to many shippers and might be an incentive for providing lower rates to encourage moving larger l.c.l. shipments.

(6.) Establish joint through rates between railroads and motor carriers.

If improved service were established by coordinated rail and truck movements, probably many shippers would pay a reasonable premium charge for such a service. This would be similar to the higher-than-rail charges for certain forwarder services.

Joint l.c.l. rates between rail and motor carriers should, wherever possible, be no higher than the through rail rates or at least no higher than the applicable proportions of local truck and rail rates combined.

(7.) Improve record and communication services.

A manifest or coded-symbol system—based, perhaps, on an improved version of the present block loading system—might be helpful in keeping records of l.c.l. shipments in transit, which in turn would greatly speed and simplify tracing. My organization has written to destination agents requesting arrival and delivery record of certain shipments. Even though we furnish stamped self-addressed envelopes, we often wait a week or ten days for a reply. In some instances we have to write a second or third time. I know of many other shippers who have had the same experience. This laxity by the destination agent can cause serious annoyance and trouble, especially when the shipments being traced are of a perishable nature.

(8.) Improve the handling of loss, damage and overcharge claims.

The suggestions above for overall improvements in l.c.l. service—including fewer transfers, unified routing and pooling—should in themselves produce a reduction in loss and damage claims. Likewise, they should tend to speed up and eliminate errors in billing.

But such claims as would remain still would require more expeditious handling than is now accorded. Payment of loss, damage and overcharge claims frequently is delayed by the carriers for exceptionally long times. Many of the delays seem totally unnecessary. Speedier processing of claims would give shippers more confidence in the railroads, thereby providing another incentive for greater use of railroad facilities. It will likewise reduce the cost of processing claims. Two months should be a reasonable length of time to settle most claims.

(9.) Improve cooperation between local stations and district offices.

Employees at stations in small communities often depend upon the division freight agent and his staff for rate and tariff information, help in obtaining empty cars, weighing of carloads, and numerous other assorted services. In many cases the two do not collaborate well. At times there seems to be reluctance on the part of the smaller station forces to go to the division or general offices for needed assistance. This pride on the part of the small town agent often does more harm than good.

(10.) Provide adequate car supply and improve freighthouse facilities for planned merchandise loading.

A careful check of the regular or seasonal movement of merchandise traffic from larger terminals and by larger shippers should produce sufficient data to provide: (a) more merchandise car schedules via various routes to a greater variety of destination points, and (b) information of value to assist and encourage shippers to plan overhead loading of through package cars to principal transfer points or direct to consignee.

With sufficient cars available, shippers could be encouraged to load trap or ferry cars at their plants or warehouses to be moved to major transfer points for loading into scheduled merchandise cars, as is being done by the New York Central. This method would be better than indiscriminate dumping of all l.c.l. freight at terminal freighthouse platforms. When the volume of traffic to be moved is low, freighthouse facilities and equipment are not used adequately. Conversely, when volume is high, it overtaxes the freighthouse facilities. Therefore, apparently, either low or high volume results is a higher handling cost factor. Obviously this condition must be overcome.

(11.) Provide mechanical handling equipment at terminals and freight stations.

During the past decade, much improvement has been made at the larger terminals by equipping freighthouses with mechanical handling devices, such as fork-lift trucks, overhead and belt conveyors, pallets and skids, and improved tractor-trailer trains. Likewise modernization of other freighthouse facilities has improved handling of l.c.l. merchandise. This program should be carried to medium and smaller freight stations so as to further improve the overall efficiency of handling l.c.l. traffic.

(12.) Equip cars with loading and bracing devices.

Greater application and use of special loading devices in box cars, such as the GAEX-DF loaders and the Evans utility and PD loaders, or similar devices, should provide a safer, cheaper and better method of loading merchandise cars to full practicable weight or cubic capacity. Likewise, improved bulkheads and bracing devices would be helpful in making maximum loads, while minimizing danger from damage in transit. Perhaps some of the new lightweight cars proposed for future construction could be equipped with loading and stowing devices to eliminate the use of cumbersome, expensive dunnage and bracing, and be permanently assigned to merchandise service.

An improved railroad merchandise freight service needs three things:

(1) A thorough understanding of the problem by both shippers and carriers;

(2) A sincere willingness by both to study thoroughly all the recommended plans for improvement; and

(3) A mutual spirit of cooperation to give a fair trial to whatever plan is agreed upon by a majority of l.c.l. shippers and railroads.

The railroads have offered an 18-point l.c.l. program. Shippers have suggested a "National Agency for L.C.L." (*Railway Age*, October 7, 1950.) Other suggestions have been offered by the L.C.L. and Merchandise Committee of the National Industrial Traffic League. All of these—like the suggestions in this report—are aimed at getting better l.c.l. service. It is my sincere hope and desire that some of these proposals for improving l.c.l. merchandise service will be given serious consideration by the railroads and will lead to a nationally acceptable plan for improved handling of l.c.l. merchandise traffic.

This 100-ft. deep hole is the beginning of the $80 million 652,000-k.w.h. electric generating plant being built at Joppa, Ill., by Electric Energy, Inc.—an organization which is a combination of five large private power companies. When completed and functioning this plant will consume over 100 carloads of coal a day

Building Traffic All Ways

Improved traffic and earnings are expected by the Chicago & Eastern Illinois as the result of a long-range program of property and traffic development now nearing the pay-off stage. The selection of C. & E. I. territory for the location of two new 652,000-k.w.h. steam-operated electric generating stations, plus plans for the construction by the railroad of a new rail-barge coal transfer facility at Joppa, Ill., indicates that the C. & E. I.'s long-sought goal of substantial improvements in coal traffic is within reach.

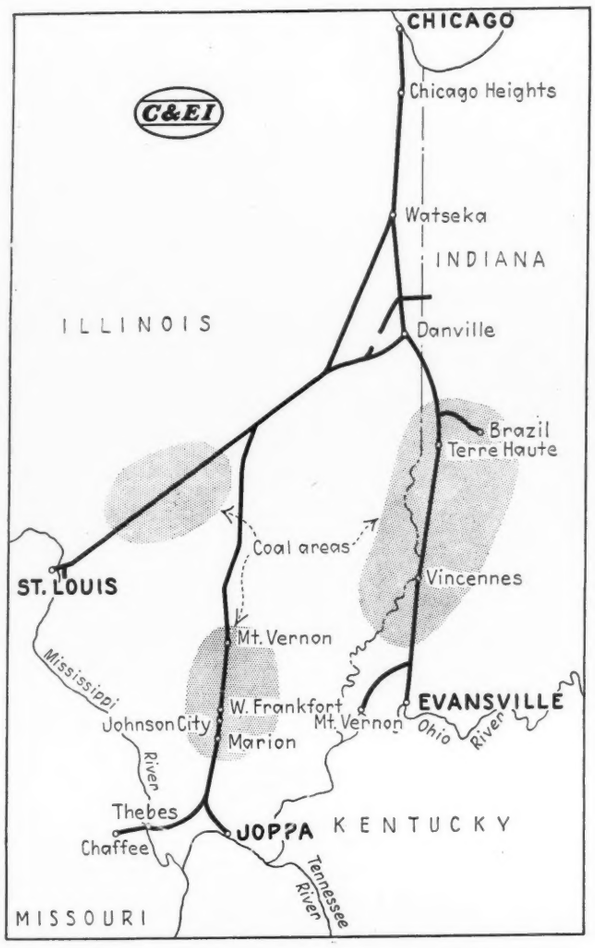
Although the management has intensively developed other potential sources of traffic—with favorable results—it was felt the ultimate financial success of the company depended first and foremost upon its ability to secure volume movements of coal.

One of the two new generating plants—among the largest steam-powered generating plants in the country—will be located at Joppa, on the C. & E. I.'s southern Illinois line. The Shawnee plant will be across the river in Kentucky, and will be available to the C. & E. I. by means of a barge transfer from Joppa. Creation of the new Joppa coal transfer will also open hitherto unavailable markets along the Ohio and Tennessee rivers for Illinois coal producers. These developments promise substantial new coal traffic for the C. & E. I. in addition to providing important new markets for Illinois coal producers.

The southern Illinois line from Findlay Junction to Thebes, with a branch from Cypress to Joppa, traverses the Illinois coal country for about 50 miles between Mt. Vernon, Ill., and Marion, as indicated on the accompanying map. The Evansville line taps the Indiana coal fields between Terre Haute and Evansville. Despite its excellent location in the coal fields the C. & E. I. does not originate a large amount of coal traffic. In 1920, when the movement of coal by rail was substantial, the C. & E. I. originated 8,661,000 tons of coal a year. But by 1950, this figure has dropped to 1,472,000 tons a year.

Even prior to the Twenties the C. & E. I. never received a large share of the shipments from its area because of the coal trade's long-standing practice of routing shipments strictly on a basis of purchases of company fuel. The C. & E. I., a comparatively small road, could not possibly use as much coal as its larger competitors in the coal fields, hence its proportionate share of the available traffic was less than its location in the coal fields would warrant. In recent years the competition for available traffic has increased sharply, and the company found itself more and more "out of the running." Conversion to complete diesel operation last year did not improve that situation.

The new Joppa and Shawnee power plants, plus the installation of several large coal-powered generating



This map shows how the three main lines of the C. & E.I. traverse important coal fields in Illinois and Indiana. Even though centrally located in these fields, the company has not originated heavy coal traffic in recent years. With the completion of the Joppa transfer for handling coal from hopper cars to river barges, and of the new power plant at Joppa, coal traffic originated on line is expected to increase

plants by the Tennessee Valley Authority at several points along the Tennessee river, has placed the C. & E. I. in a new position with relation to Illinois and Indiana coal producers; it can now offer them access to large new markets for their coal at a time when coal markets are hard to find.

At present, Illinois and Indiana coal producers claim they are not able to compete in the large markets available along the Ohio and Tennessee rivers because all-rail transportation costs are too high to meet competition from other coal fields. River barge transportation has not been available because of the lack of dumping and transfer facilities and of rail-water rates. The C. & E. I. will rectify this condition with its new facility at Joppa —said to be the best port on the Ohio river south of Louisville.

In recognition of this new facility, the T.V.A. has already let contracts on 430,000 tons a year of Illinois coal for movement through Joppa starting in January 1952. The road anticipates that as soon as its "port of Joppa" rail-barge transfer is working, coal producers will find additional markets up and down the Ohio and Tennessee rivers.

It is not by sheer accident that this remarkable development has centered around Joppa and the C. & E. I. Financial observers and railroad analysts credit an aggressive, alert management, skillful industrial development, small concessions on various commodity rates, and considerable old-fashioned hard work. To secure this movement, the road has offered—among other things—attractive rates for the movement of coal from the mines to Joppa.

Although Indiana coal producers are not now participating in this new development, the C. & E. I. has offered to develop a similar coal port facility at Mt. Vernon, Ind., at such time as Indiana producers show sufficient interest.

This new coal traffic development is but the most recent step in a well-organized plan of property and traffic improvement designed to lift the road to a new status as a profitable enterprise. An alert board of directors, aided by a succession of good managements starting with Holly Stover, and including John Budd (now president of the Great Northern), has been responsible for putting the road firmly on its feet and getting it headed in the right direction.

Road's Native Handicap

The fact that the road has three main lines—none longer than 287 miles—makes it a somewhat difficult property to operate economically. If its 885 miles of line could be operated as a single unit, lower operating costs would be possible. And that in turn would make the net result of the road's operations more favorable.

The road's operating problem is further complicated by its 50 different points of connection and interchange with other railroads. This means that either through freight trains must make frequent stops to pick up and set off cars, or an abnormally large number of local services must be operated in order to service these interchanges. (These connections do represent, of course, valuable sources of traffic.)

These problems are offset, to some degree, by the road's favorable profile which makes possible the handling of tonnage trains, and by the substantial volume of through traffic handled between Chicago and St. Louis, and between Chicago and Evansville.

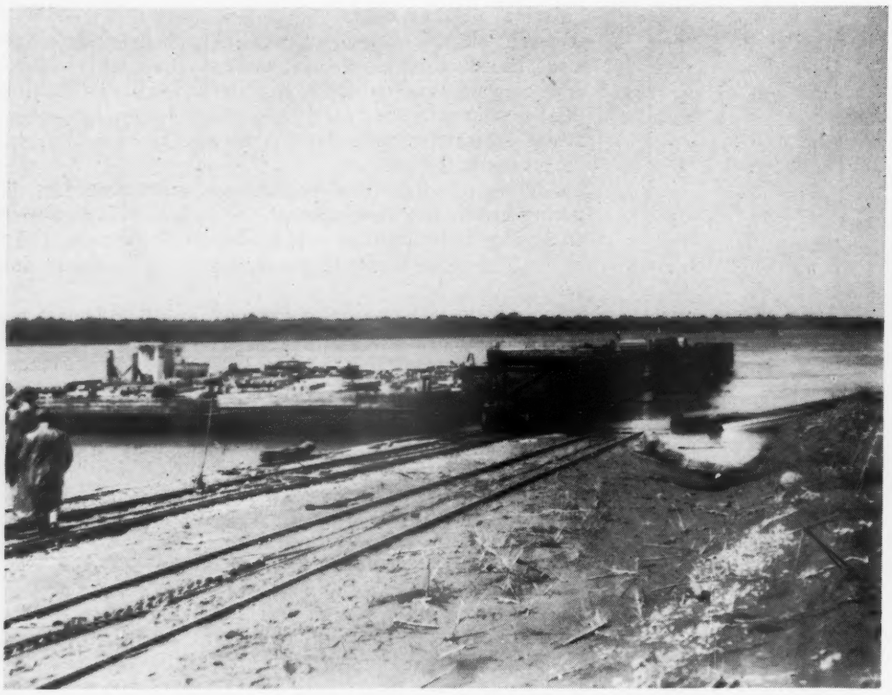
Track is being maintained to high standards with 110-115 lb. rail on the Evansville and St. Louis main lines, and 90 lb. rail on the southern Illinois line, with all treated ties. Ballast is now varied between slag, crushed stone, chatts and gravel, but a program calling for the eventual use of only slag or crushed stone ballast on the main St. Louis and Evansville lines is in progress with remaining chatts and gravel ballast being replaced at the rate of about 30 miles a year. Track and maintenance gangs are highly mechanized.

Heavy repairs to equipment are made at the Oaklawn shops in Danville. A new diesel repair shop has been built in the building formerly used for the steam locomotive back shop, and is completely equipped with modern machinery and equipment. The management has endeavored to make this thoroughly modern shop an effective, economical operation.

The former steam boiler shop is now being used as a freight car shop for the assembly-line construction and rehabilitation of freight cars. Construction of 300 new box cars has just been completed, and work is now under way on the complete reconstruction of 176 70-ton hoppers and 75 50-ton hoppers.

Most of these improvements in property have taken place in the past three years. Plans now under way, and under consideration, promise still further efficiency in both operations and maintenance.

The property improvement and coal development pro-



Left—The C. & E. I. now uses the landing at Joppa for receiving barge shipments of lumber and railroad ties from southern points. The railroad cars are run onto cradles which are raised or lowered on tracks laid on the river bottom to correspond with the current water level. In this picture, two barges are transferring a shipment of railroad ties to gondola cars

Facing page—The movement of highway trailers on flat cars between Chicago and St. Louis (Mitchell yard) has proved a valuable source of revenue. Although the present traffic is not large, a contract has been signed with Rail-Trailer to act as an agent in securing additional traffic as soon as more flat cars can be made available

grams have been matched by a parallel industrial development program which, in 1950, brought 39 new industries to the C. & E. I., producing an estimated 5,200 carloads of freight. In addition, several important on-line industries undertook substantial plant expansions.

Greatest development has centered around Chicago Heights and Evansville—two fast-growing industrial centers. The Chicago Heights Terminal & Transfer railway, a C. & E. I. subsidiary, owns extensive industrial trackage practically blanketing the Chicago Heights industrial area. In addition it owns large tracts ideally suited for industrial purposes.

The railroad has a belt line with extensive industrial trackage in the fast-growing Evansville industrial district. Traffic on this belt line has been growing steadily —both from expansion of existing industries and from the moving in of new plants and industries.

Just outside of Terre Haute, in a location accessible to the C. & E. I., the Public Service Company of Indiana is building a new 600,000-k.w.h. steam-powered electric generation station. Although it is being built adjacent to a coal mine, the company plans to receive two-thirds of this plant's daily fuel requirements by rail—and the C. & E. I. expects to share in this business. Also in Terre Haute—just north of town along the C. & E. I.—Allis Chalmers has selected a site for the location of a new factory.

Looking towards the future, the C. & E. I. has just purchased 74 acres of property on the shore of Chicago's Calumet river, which is being deepened to accommodate lake shipping. This site will give the road choice "bait" for use in creating new traffic in this hotly competitive industrial district. The company also owns 242 acres of land suitable for industrial purposes adjoining its new Wansford yard on the north side of Evansville.

The large power development in the Joppa area will eventually make this a location with an abundant supply of inexpensive electricity. In turn this should attract industry to this now predominantly agricultural area. The C. & E. I. will likewise benefit from this growth.

To accommodate the new traffic resulting from its energetic development activities, the road will need a substantial amount of new equipment, plus expanded and improved tracks and facilities.

The new coal dumping facility at Joppa will have a capacity of 10,000 tons daily, and will be installed at a cost of $250,000, including the cost of belt conveyor, track facilities, harbor deepening, etc.

Electric Energy, Inc.—the builder and operator of the new $80,000,000 Joppa power plant—is constructing a balloon track with yard and storage facilities for 360 cars to handle incoming coal for its plant.

New mine spurs and yard tracks will be constructed as needed, and when it becomes apparent which mines will be involved in the traffic. It is considered possible that some new mines might be opened to cater to this business. In addition, the main line from Salem south to Joppa will be strengthened and improved to accommodate the heavier traffic.

The railroad has placed orders for over 3,000 new cars—some of which have been delivered. Upon receipt of this equipment, the road expects to have adequate equipment to handle its burgeoning traffic.

Stimulating Rates

The C. & E. I. has not been content to rest on conventional methods of development for increased traffic volume. In recent months it has been doing considerable research—with encouraging success—with rates designed to attract new business as well as help increase the company's net revenues.

By offering an attractive rate from Evansville to St. Louis, the road was able to secure a substantial movement of new automobiles from the Plymouth plant at Evansville (on the Belt line) to St. Louis which had

formerly been moving exclusively by highway. Inasmuch as the movement was controlled solely by rates, the road was able to obtain the business and put the competing highway carrier out of business. This traffic now moves from Evansville to Danville, and Danville to St. Louis in regularly scheduled freight trains.

In a similar move designed to win business back from the highways, the road has filed notice of new rates on finished refrigerators from Evansville—said to be the refrigerator "capital" of the country—to Chicago. This traffic, like the Plymouth autos, is now moving by highway and is controlled more by rates than by service. The C. & E. I. wants this business to add tonnage to its existing trains, and to increase its revenues. Quotation of the "right" rates was one of the instrumental factors in locating the huge Joppa power development on the C. & E. I.

Another move designed to increase traffic and revenues was the institution of a movement of highway trailers on flat cars from Chicago to Mitchell, Ill. (St. Louis). This service lagged when instituted two years ago, but is now attracting good traffic—and growing. These highway trailers are handled on a tariff calling for the use of substituted rail service and a division of revenues.

Commenting on this highway movement, the C. & E. I.'s president, Clair M. Roddewig, explains that he considers it good business because "this highway traffic is business we do not now have—though we are trying mightily to get it to move in our freight cars—and therefore, any revenue we are able to obtain from the truckers represents new and additional revenue to us." In addition, because of its efficient use of cars and equipment, the road has found this movement to be highly profitable. It is now considering expanding its field by offering tariff rates for the movement of private trucks. (Under its present substituted service arrangement, it can only accommodate common carrier truckers having authorized routes between Chicago and St. Louis.)

The road likewise has been active in the improvement of its passenger services and is able to report a 1950 passenger operating ratio—on the Interstate Commerce Commission formula basis—of 95.7, excluding revenues from retroactive mail pay applicable to prior years. The reduction from a ratio of 110 in 1948 and 109 in 1949—after allocation of applicable retroactive mail pay—is attributed to a careful rearrangement of schedules designed to make C. & E. I. services coincide as nearly as possible with the needs of the traveling public, to removal of non-productive train mileage, continued high standards of service, and vigorous solicitation and sales effort. The passenger department has paid particular attention to the operation of special trains, being sure of revenues adequate to meet all costs before requesting their operation. It may be that the road's low fare policy—the basic coach fare is 2½ cents per mile, unrestricted fare is 3 cents per mile—has assisted.

Although the main line from Chicago to Evansville does serve several important secondary cities, it lacks any primary travel markets. As a consequence, particular effort has been devoted to building overhead passenger traffic to and from the South and Southeast. This effort has succeeded to the point where overhead traffic represents the greatest share of passenger revenues. And the nature of the traffic—largely originating or terminating in Chicago—makes possible an exceptionally efficient operation with a high load factor.

Military traffic has helped push the passenger operating ratio down, but it is not entirely responsible for the favorable showing; civilian traffic has produced the lion's share of the profits. On an out-of-pocket basis, including all traffic department expense, the 1950 passenger service operations produced a net profit of $754,000 from a gross of $5,346,685.

Through all of its efforts run the C. & E. I.'s constantly stated aims: to build itself, although small, into an efficiently operated and profitable railroad property.

When it came to the loading of Duff's baking mixes A.H.F. found that the bonded block method of loading did not work out as well as did loads where the long axes of the cases were placed lengthwise of the car

Bonded-Block Paper-Tied Loads Cut Damage for American Home Foods

By C. B. ROEDER
General Traffic Manager
American Home Foods, Inc.

Finished load of baking mixes, complete with doorway protection. Note in this photo and in the one above that cars are lined with paper before load is placed in them

When our country emerged from World War II, American Home Foods was operating three divisions engaged in highly specialized foods processing, namely, Clapp's Baby Foods, G. Washington Instant Coffee, Broths and Food Seasoning and Duff's Baking Mixes. Soon thereafter A. H. F. acquired Chef Boy-Ar-Dee Foods and Burnett Flavoring Extracts. Each of these formerly independent companies, pioneering in its respective field with nationally advertised brands, had established a reputation for high standards of quality and values. Incentive to the new owner of these businesses had to come from marketing economies, more efficient production, and better distribution. Company policy required immediate surveys in these respective fields of activity in the newly acquired companies and the synchronization of their marketing techniques with those already in use by American Home Foods divisions. Naturally, the traffic department of A.H.F. was called upon to determine the opportunities for economies in distribution.

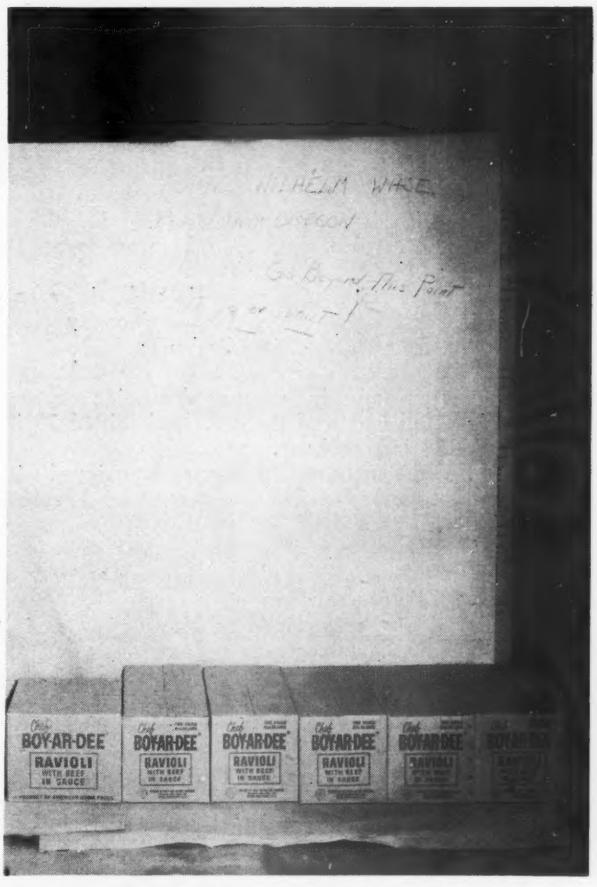
One of our first jobs was the checking of shipping containers of the new A. H. F. divisions, to see whether or not they conformed to the specifications in the Consolidated Freight Classification. All were found either to conform or to be above the standards. However, the unfavorable damage claim experiences of the new divisions suggested the desirability for improved packaging, han-

This photograph, taken at origin, shows one end of a stop-off car, with load unitized by paper

dling and loading. Studies along these lines were conducted by the respective divisions of management.

Prior to the fulfillment of our program, the general traffic department began an investigation into reports of instances where shipments which had been refused by consignees and turned back to carriers because of damage, were being offered for sale by the carriers at prices 50 per cent or more below market prices. These situations, particularly during 1947 and 1948, were having a very disturbing effect upon our regular dealers and clearly indicated to our management the necessity for working out with the transportation companies some arrangement which would allow the carrier to recover the salvage value of the damaged merchandise yet protect our dealers against such competition. Several of our carriers were consulted on this problem and when it became rather obvious that the real solution required our having damaged merchandise turned back to us for disposition we appealed to the Freight Claim Division of the Association of American Railroads for assistance. Through them we obtained the support of the individual railroads, and arrangements were concluded which enabled us to recover maximum salvage values from such merchandise. Thus we reduced the claim liability of the carriers, and at the same time removed the causes of customer (wholesale and retail dealer) criticisms by discouraging the sale of damaged merchandise.

While these salvage arrangements were being set up we conducted a series of test loadings of carload freight. The object of the tests was to determine a loading method which would minimize damage. The initial tests were made on interplant movements where complete supervision of loading, unloading and inspection could be made by company personnel. In this undertaking we had the assistance and experience of engineers from our supplier of glass containers. One of the objects of these



Final consignee's portion of load in a stop-off car not only is separated from stop-off consignee's portion but the unloader at the intermediate point is warned not to go beyond the bulkhead when unloading

The author

tests was to determine reasonably the time dividing the responsibility for damage between the carriers and ourselves.

There were three specific damage problems which were dealt with in our shipping and laboratory tests:

(1) Label scuffing on glass jars;

(2) Corrugated containers badly chewed up and so badly scuffed that printing on the cases was unreadable; and

(3) Breakage in transit.

The transportation tests were run on seven transcontinental interplant shipments loaded in box cars. Different loading techniques were employed for each car, viz:

(1) Wooden bulkheads which divided the load both lengthwise and across the car (36 jars broken);

(2) Three-inch corrugated cushion divider crosswise of car in the exact center of the doorway area, paper tied at fourth and eighth stack (24 jars broken);

(3) Straight loading (long side of carton across the car) with the three-inch void in each layer staggered (8 jars broken);

(4) Wooden bulkheads at the doorposts holding the load in each end, and a two-inch corrugated "cushion" (crosswise) dividing the doorway portion of the load (24 jars broken);

(5) Corrugated cushion divider (4½ in. thick) lengthwise of car (load shifted 16 in. from end—103 jars broken);

(6) Unitized loading with paper-tie and 3-in. corrugated divider crosswise of car in the doorway (load shifted 17 in. from end—94 jars broken);

(7) Wooden bulkheads crosswise of car 4 ft. each side of doorway and 4-in. corrugated cushion on each side wall the full length of the car (load shifted 19 in. from end—154 jars broken).

Two of the cars contained 30 cases each equipped with plug pads, but the pads failed to overcome label scuffing on jars. It also proved of interest that all steel straps anchoring bulkheads were either broken or pulled loose.

Damage was found to be of three types. The types of damage and their causes were:

(1) Vibration of cars caused rubbing of jars against side walls of the container cells and consequently label scuffing. Subsequent tests run on vibrating machine, with cases compressed between channel irons, proved that when such vibrations continue over any extended period of time, the very best quality of labels and the least abrasive packaging material will not prevent defacing of labels.

(2) The pronounced load shift in the three cars with the greatest amount of breakage was suggestive of rough handling.

(3) Car vibrations and movements of superstructure prevalent in railroad transportation were causing the scuffing of the containers. Rigid materials, for outer containers, least abrasive facing materials, proper sealing and correct loading methods were considered essential in minimizing this type of damage.

These tests led to the conclusion that in determining how much protection to provide in packages, there was a point beyond which we could not reasonably be expected, by the carriers, to protect our wares. Beyond this point any responsibility for damage was the carriers'. It was suggested that if the lading of a car shifted from 10 to 20 in. in transit, that car had received extremely rough handling, and that breakage or damage encountered in such instances was indisputably the carrier's responsibility. This view was later substantiated through extensive use in test cars of impact recorders. Damage that might occur from impacts of normal severity was considered to be within the area where our glass containers, package protection and loading methods might be held responsible, and therefore should be reviewed and improved upon.

These experiences were compared to those of a large eastern shipper who had made extensive use of impact recorders and it was concluded that our sampling proved typical of average conditions. Although railroad operating people were rather free to acknowledge that impacts of five to six miles per hour were considered normal handling, our experience proved it to be not uncommon to find impacts of nine to ten miles per hour recorded on the tapes. It would be fair to say, then, that we built our containers, etc., to withstand 5-6 m.p.h.

Containers and Labels

While our engineering department worked on the refinements in packaging materials, other operating divisions dealt with the subject of glass containers and improved quality of labels. Laboratory tests on an S & S scuff tester determined for us the least abrasive of scuffing agents used in box partitions and facings, and the importance of printing and colors that are fast and not easily scratched or transferred to the contacting areas. Comparative tests also were run on the use of C-flute partitions to increase rigidity of boxes. The results of these tests were incorporated in specifications to suppliers.

After all these tests it was decided that slotted double-faced corrugated fiberboard shall be used for the shipping containers. Present shipping containers are constructed of C-flute board having a Mullen test of not less than 175 p.s.i., and they also must withstand a minimum compression load of 12 lb. per perimeter inch on top-to-bottom load. The manufacturer's joint is of lap type construction having a lap—at least 1¼ in. wide—on the outside of the case. The joint is closed with wire staples spaced not more than 1½ in. apart.

The interior of the Clapp container is fitted with double-faced corrugated fiberboard partitions, which divide the container into 24 cells. These dividers are constructed of Kraft liners (.009 D.F.) and C-flute board having not less than 44 corrugations per ft., to form double-faced, single wall board. The corrugations in both the shipping containers and interior partitions run vertically when in position.

To the traffic and shipping departments was delegated the responsibility for better loading methods. Tests with the brick or bonded-block method of loading proved sufficiently encouraging to induce us to add an inner lacing paper (paper-tie).

Results were proved under Freight Loading and Container Section, A. A. R., supervision as portrayed in a group of illustrations:

(1) Taken at origin point is this doorway view of a test car destined to Chicago;

(2) The destination doorway view of the same car. Observe that the slack appearing in origin photo does not appear at destination;

(3) Shows that slack which existed in doorway at origin has been transferred to end of car, creating a void of approximately 14 in. Note, however, that the cases have moved evenly together in all layers. This car contained 1,060 cases of Clapp's Strained 4¾ ounce and 935 cases Junior 7¾ ounce, topped with 45 cases of Instant Cereals. The entire load consisted of bonded block, the Clapp's Strained in a 17-block pattern consisting of three chimneys and a single 2 by 3 block while the Juniors were loaded in a 15-case block of six crosswise by nine lengthwise pattern. Both patterns were tight crosswise in the 8 ft. 3 in.-car. (29 jars were broken);

(4) Shows block alignment after partial unloading at destination, even though there was considerable shift in the load enroute;

(5) Illustrates lengthwise stowage method as well as the application of a laminated sisal Kraft paper in a unitized load at origin.

Basing our decision on the results of the tests depicted in Figs. 1-5, we adopted the bonded-block paper-tied method for our loading, since it had proved most effective in further reducing damage experience. This is demonstrated by a comparison of claim records. Prior to the adoption of the bonded-block paper-tied load, damages were reported in 49 cars of 162 shipped in eastbound transcontinental service during a six-month period. Total losses after reconditioning aggregated 2,789 jars. (Loading methods illustrated in Figs. 1 and 5 were used.) Using the combination of bonded-block stowage, utilized with laminated paper, damages in the first five of nine cars, moved between the same points, aggregated 69 jars. Thus, under our old methods of loading, damage per car averaged 17.2 jars, and it decreased to 7.6 jars per car when we used the bonded-block paper-tied load. This is a decrease of approximately 56 per cent. I might say that it was through the cooperation of our customers, public warehouse men and delivering carriers, who assisted us by making out torn checks and then reporting to us, that we developed a very impressive record of the outturn of many cars.

With this information at our disposal, we extended our tests of unit loading to varying strengths of paper to find a grade strong enough to absorb the so-called abnormal shocks. At the same time we called on the claim prevention bureaus of several eastern lines, as well as the Freight Loading and Container Section of the A. A. R., to observe our loading methods. Carrier representatives and A. A. R. engineers gave us the benefit of their experiences.

Our subsequent experiences have demonstrated the effectiveness of the damage prevention measures taken. During eight months of 1949, the Clapp's Baby Foods division's records show that the number of claims filed on shipments by rail during this test period was reduced 35 per cent below a corresponding period of operation in the previous year, and the dollar amount of loss and damage claimed was reduced 37 1/3 per cent.

Fig. 1

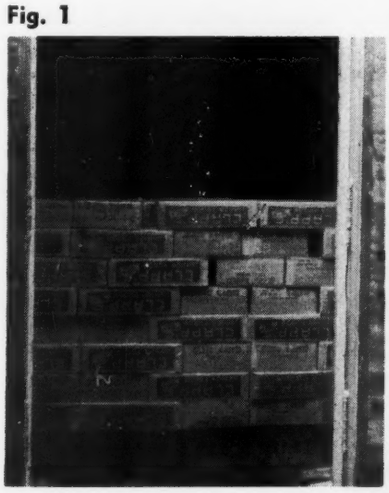
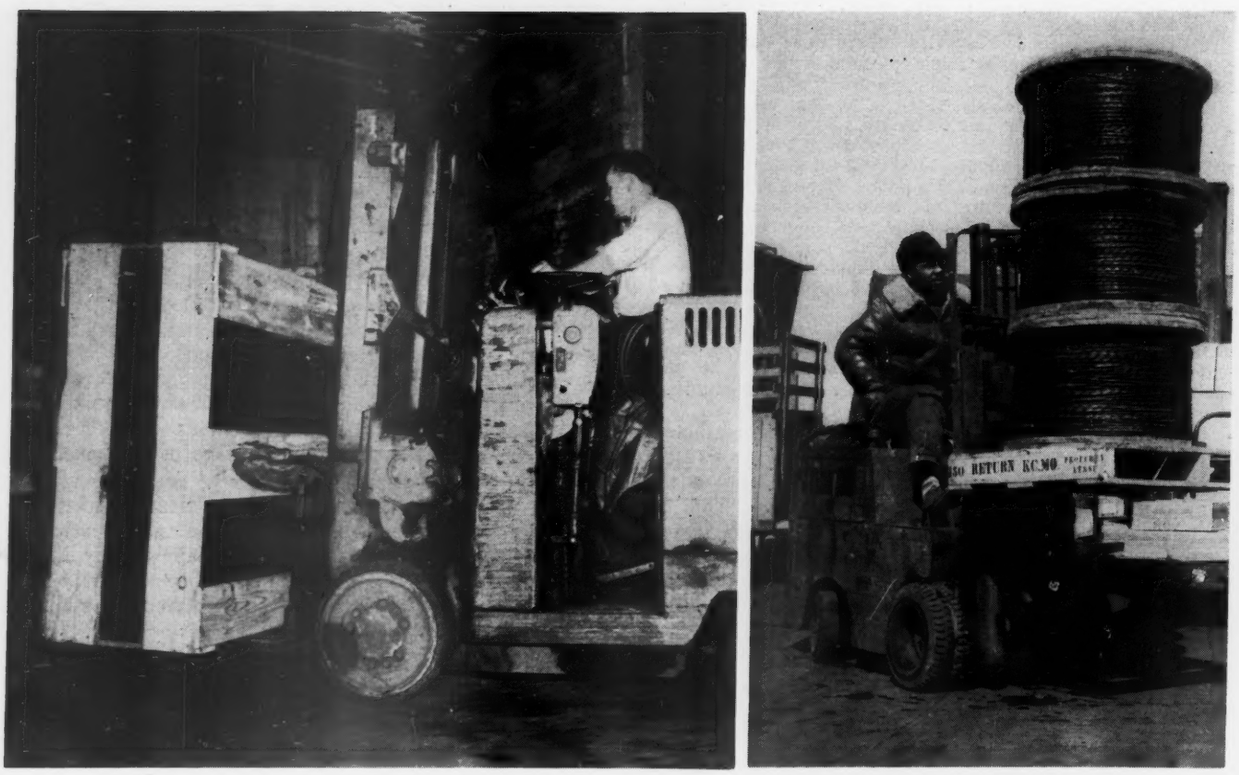


Fig. 2

Fig. 3

Fig. 4

Fig. 5



Heavily loaded trucks (left) frequently break car floors. Dual drive wheels (right) reduce unit load and give added traction

Box-Car Floor Conditions Cause General Concern

Gondola and flat-car floors also need strengthening with improved modern materials and designs—Shippers can help by the more careful use of mechanical loading equipment

During and since World War II, one of the acute problems with respect to freight-car performance has been the poor condition of floors, particularly those in box cars, but to a hardly less serious extent also in gondolas and flat cars. No authentic figures are available regarding the number of car-days lost per year on account of defective floors, or how much this condition costs the railroads for out-of-service time, repair expense, damage claims and general shipper dissatisfaction.

One great source of trouble in connection with box cars is the use of power lift trucks which bring highly concentrated loads to bear on the floors of cars placed for loading heavy products such as steel. In many instances, truck wheels seriously damage or even break through the floors. There can be no valid argument against the use of lift trucks and palletized loads, because of the saving effected in time and labor, but when the combined truck and load weight exceeds 10 tons, as sometimes happens, and most of this load rests on a single pair of wheels and often on a single floor board, it becomes a question if railroads can reasonably be expected to design all car floors for this extreme condition.

In other words, with nearly ¾ million box cars in service on Class I roads and most of them subject to extreme loading at very infrequent intervals, if ever, can railroads afford to strengthen the floors of their entire inventory of box cars to the extent that individual floor boards will safely support loads of say 7½ to 9 tons? A preferable solution would seem to be for railroads to (1) strengthen and improve car floors to the fullest extent practicable; (2) allocate cars with adequate-strength floors to special service involving heavy steel and other

Ten-ton ore bucket unloading mill scale from a low-side gondola equipped with Nailable Steel flooring

Ten-ton sheet-steel bundle being loaded in a car with Nailable Steel flooring between bolsters

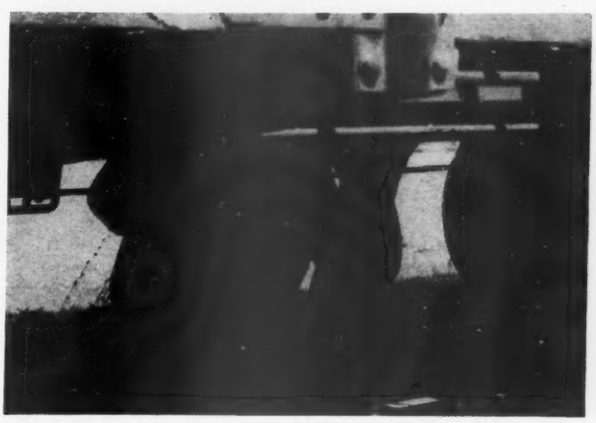
Effect of repeated abuse in loading and unloading a gondola with a steel floor

What happens to the floor and sides of wood gondolas when subjected to rough treatment

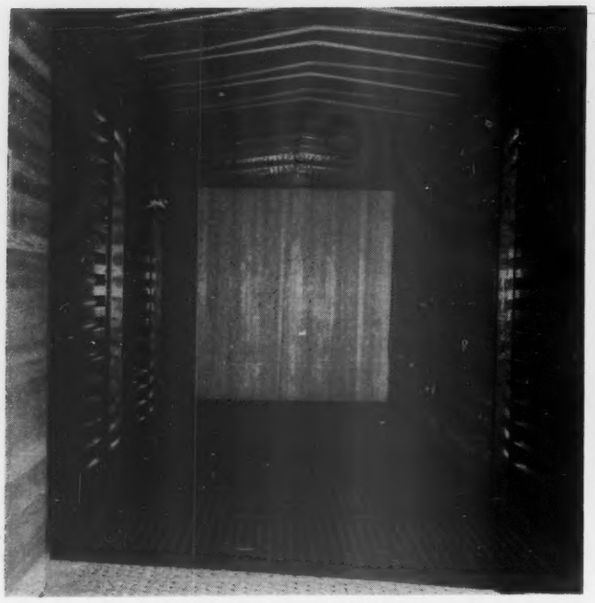
loading, and (3) for shippers to exercise greater care in loading with lift trucks and using steel plates to protect floor boards, especially in older equipment, or whenever otherwise necessary.

What About Gondolas?

In the case of gondola cars, mechanical handling equipment such as heavy clamshell buckets, magnets, etc., cause most of the damage, by being carelessly dropped, piercing floors, breaking boards, denting steel plates between supports and occasionally catching on cover plates and pulling them up. Enlightened self interest would seem to require shippers to institute a campaign against careless loading of all freight cars and to police it themselves, not so the railroads will be saved unnec-



Heavy rolls of band steel dropped through this gondola floor



Automobile box car with perforated-steel floor protector plates between the doors

How heavy banded bundles of steel are loaded on a low-side gondola with Armco composite steel-wood floor

essary repair costs, but so the shippers who use the cars will get their equipment quicker and in safer and more satisfactory condition for loading.

Gondolas and hopper cars, which together constitute an even larger total ownership than box cars, also need concentrated effort by railroads for the strengthening and improvement of floors in accordance with the best current practice. In general, gondola cars are now equipped with steel-plate floors to withstand impact or with wood floors to permit handling blocked loads, some shippers requiring one type of floor and some using only the other. Both features of full strength and nailability are now combined in dual-purpose modern designs of all-steel or composite steel-wood car floors which have been extensively installed and service tested with generally promising results. As applied to gondola cars, in addition to other advantages, the dual-purpose floors will apparently meet all shipper loading requirements in a single car floor and thus increase car availability, simplify distribution and reduce the number of cars required to handle a given volume of traffic.

A.A.R. Report on Floors

After calling attention to the serious damage to box-car floors by present loading methods, an A.A.R. sub-committee report on floor strength, just presented at the Mechanical Division annual meeting in Chicago, says:

"There is still a large railroad ownership of box cars having 1¾-in. thick wood flooring with only one longitudinal floor support between the side sill and center sill; numerous other cars with one floor stringer and 2¼-in. or 2⅜-in. thick wood flooring; and many cars have the present standard A.A.R. floor consisting of 1¾-in thick flooring with two longitudinal floor stringers on each side of the center sill. *All of the above floor combinations have been found lacking in sufficient strength to cope with present-day heavy loading practices.* (The italics are ours. —EDITOR)

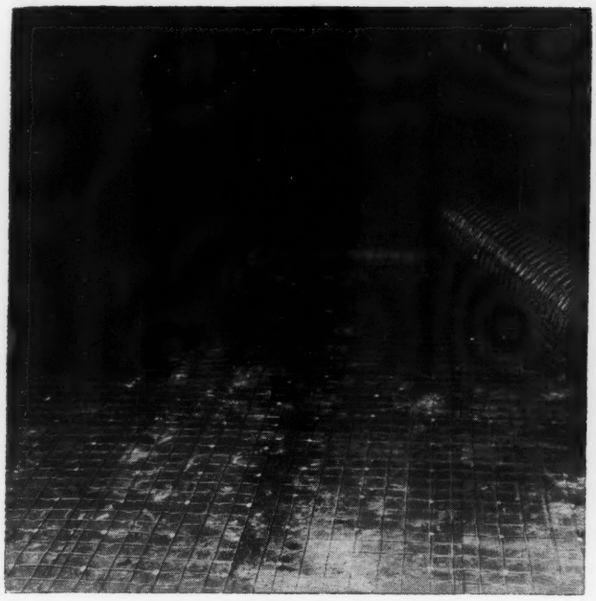
"Various expediencies have been advanced to correct temporarily these deficiencies. Some car owners have laid an auxiliary ¾-in. thick floor diagonally over the top of the present 1¾-in. floor in order to make the cars serviceable. An additional floor stringer has been added, making two on each side of the center sill. In the case of cars with the 2¼-in. or 2⅜-in. floor, this has merit, but with the 1¾-in. floor it still does not create a trouble-free floor. The addition of a perforated steel plate, extending from door to door, has materially improved the condition at the doorways where most of the damage occurs, but it is not the final answer."

The report refers to the new steel and steel-wood dual-purpose floors developed by specialty manufacturers which it says afford relief from ordinary floor weakness but are quite expensive. A summary of the results of extensive tests of floor strength with various combinations of wood thickness and steel floor stringers is included and shows among other things the superiority of yellow pine over fir flooring from a strength standpoint, also the advantages of high-strength steel in equal sections, continuous stringers and crossties at car center lines.

The report includes diagrams of two types of lift trucks in common use which have combined truck and capacity-load weights of 16,300 lb. and 23,200 lb. respectively. The report closes with the following comment regarding wood car floors: "From the data submitted, it is apparent that flooring of substantial strength is obtained with a 2⅜-in. wood floor laid on four 3-in 6.7-lb. floor stringers (two on each side of the center sill) for an approximate additional expenditure over standard A.A.R. construction of $67 per car set. Several railroads are using four 4-in. 8.2-lb. Z floor stringers to further increase floor strength."

Railway Age *Questionnaire*

Questioned about freight-car floor conditions and costs, an even dozen railroads reported to *Railway Age* recently that box-car floors, (1) have an average service life of four to six years, (2) cost $150 to $300 to install, (3) average $20 to $60 a year for maintenance, and (4) are subject to such rapid wear and severe damage under present loading conditions that expenditures for improved modern materials and designs are a paying investment.



A box-car floor prepared for the application of Plastinail

Plastinail applied to a box-car floor, sides and ends

These roads were practically unanimous in reporting the use of thicker wood floors with additional floor supports and perforated-steel floor-protector plates of the type furnished by the Standard Railway Equipment Manufacturing Company for application between doorways or slightly beyond, where most of the wear and damage occur. Two roads referred to pressure-treated lumber as being definitely advantageous in certain types of service. One mentioned the application of Apitong Philippine mahogany floor boards, supplied by the Mahogany Importing Company, to a sizeable order of new box cars in which this material showed exceptional strength, elasticity and resistance to wear.

The specific references to treated lumber were as follows:

One road said, "The life of the average wood freight car floor depends on the type of service to which the car is assigned. Generally speaking, an untreated floor will give from three to five years of service, after which partial repairs are necessary due to decay. Where floors are treated, rotting is abated and, in the case of CZC. certain fireproofing qualities are afforded."

Dual-Purpose Floors

Another road reported, "Our standard decking for gondolas has been 2¼-in. shiplap pine, and the breakage has been so heavy that we estimate all decking is renewed each four years. Last year we adopted 3-in. creosote-treated shiplap pine for gondolas, which has performed satisfactorily to date. On flat cars, we use only 3-in. square-edge creosote-treated black-gum flooring, which has been in use since 1940 on one series. Only a very small percentage of this decking has been renewed."

With reference to the dual-purpose patented floor constructions, seven of the 12 roads have made more or less extensive applications of Nailable Steel flooring, supplied by the Great Lakes Steel Corporation, a unit of National Steel Corporation. This flooring, described in *Railway Age* April 8, 1950, page 50, consists of channels with curved webs spaced a nail diameter apart, welded securely to the underframe and having nailing spaces filled with asphalt plastic to assure a tight floor, as well as one which adds materially to car strength.

General interest in the results of service tests of this equipment is evident from replies to the questionnaire. One road, for example, reports as follows: "We have some of our cars equipped in the doorways with Nailable Steel flooring. We are also equipping a number of box cars and gondolas throughout and have never had an instance of breakage with this type of floor."

Composite steel-wood floors, furnished by the Armco Steel Corporation, also are being widely tested in railroad service. This flooring, described in *Railway Age* of September 16, 1950, page 61, consists of alternate hat-shape steel ribs, welded crosswise to the center sills, longitudinal stringers and side sills, and has alternate wood planks bolted to the rib flanges. This construction has demonstrated numerous advantages including adaptability to any kind of lading, good nailability, increased car strength, reduced lading damage, ease of installation and less shopping time for repairs.

In general, replies to the *Railway Age* questionnaire indicated a desire for more experience over a period of years before trying to evaluate the efficiency or full economic advantages of either of the new dual-purpose floors which add appreciably to car cost and somewhat to weight. The thought was expressed that justification for the additional expenditure will have to be found not so much in reduced cost of floor repairs as in increased car serviceability, fewer damage claims by shippers, and in avoiding the cost of accidents caused by heavy materials breaking through weak car floors and falling to the track beneath.

In connection with the Standard-type perforated-steel floor-protector plates, a typical comment by one railroad was to the effect that two large lots of new box cars will be so equipped at doorways and another smaller lot over the entire floor. The report stated that applications are also being made at doorways to several thousand existing steel cars during cycle repairs and concluded with the following statement about performance: "Because of heavy loading and damage to which wood floors are subjected, particularly at doorways, the plating at this

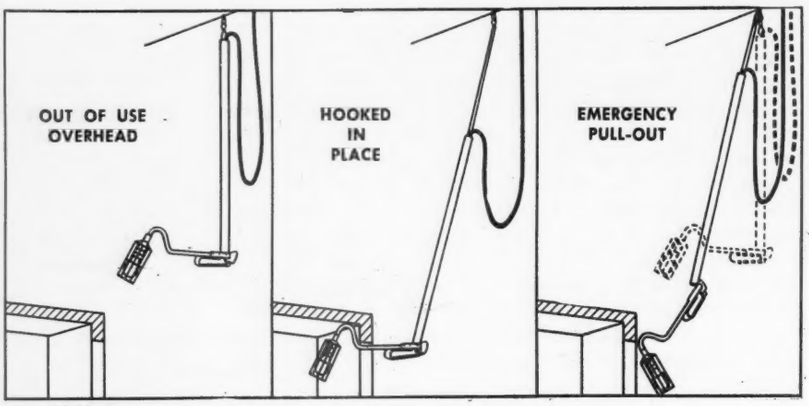
location is fully expected to reduce floor maintenance cost and improve performance, although no figures are available at this time. Further experience must be awaited for decision on the advantages of the full-length installations."

Another type of nailable flooring material, called "Plastinail" and designed primarily to renovate worn box-car floors, was referred to in the questionnaire returns as being widely tested. This product is a joint development of the F. E. Schundler Company, the Westvaco Division, Food and Machinery Chemical Corporation, the Dow Chemical Company, and the Weyerhaeuser Timber Company. A feature of this flooring is that blocking nails may be applied in any location and readily withdrawn with little or no chipping of the material, which is said to be easily applied, flexible, light in weight, high in compressive and transverse strength, permanently smooth to minimize lading damage, fire and spark proof, oil resistant, easy to clean, and not affected by heat or cold—and hence well adapted to assure long floor life with minimum out-of-service time.

Plastinail flooring is applied by first covering the old floor of the box car with 15-lb. asphalt-saturated felt paper. This gives a separation for independent expansion between the old wood and the new Plastinail floor. No. 16 gage, 2-in. sq. square-mesh reinforcing wire is then nailed over the paper. Retaining strips are fastened in the doorways of the car. A wet mix of Plastinail is prepared and troweled into the wire mesh to a thickness of 1 in. and then smoothed level. Additional trowelings are given the floor to obtain the desired smoothness. Plastinail may also be applied in the same manner, $\frac{3}{8}$ in. thick, to the sides and ends of box cars to reinforce the interiors and give a smooth surface for the handling of bulk shipments without danger of damage or possible infestation.

Experience indicates that the only damage normally encountered with these floors consists of nail holes and other small holes which may be easily repaired by applying a small quantity of the original material with a trowel at minor cost for labor and material. As in the case of other modern floor materials and designs, the performance of Plastinail floors over a period of years must be studied to give a measure of its true worth.

An installation of Anchorlites in service at a freighthouse



Sketch showing how the Anchorlite is constructed and operated

Illuminator For Loading Platforms

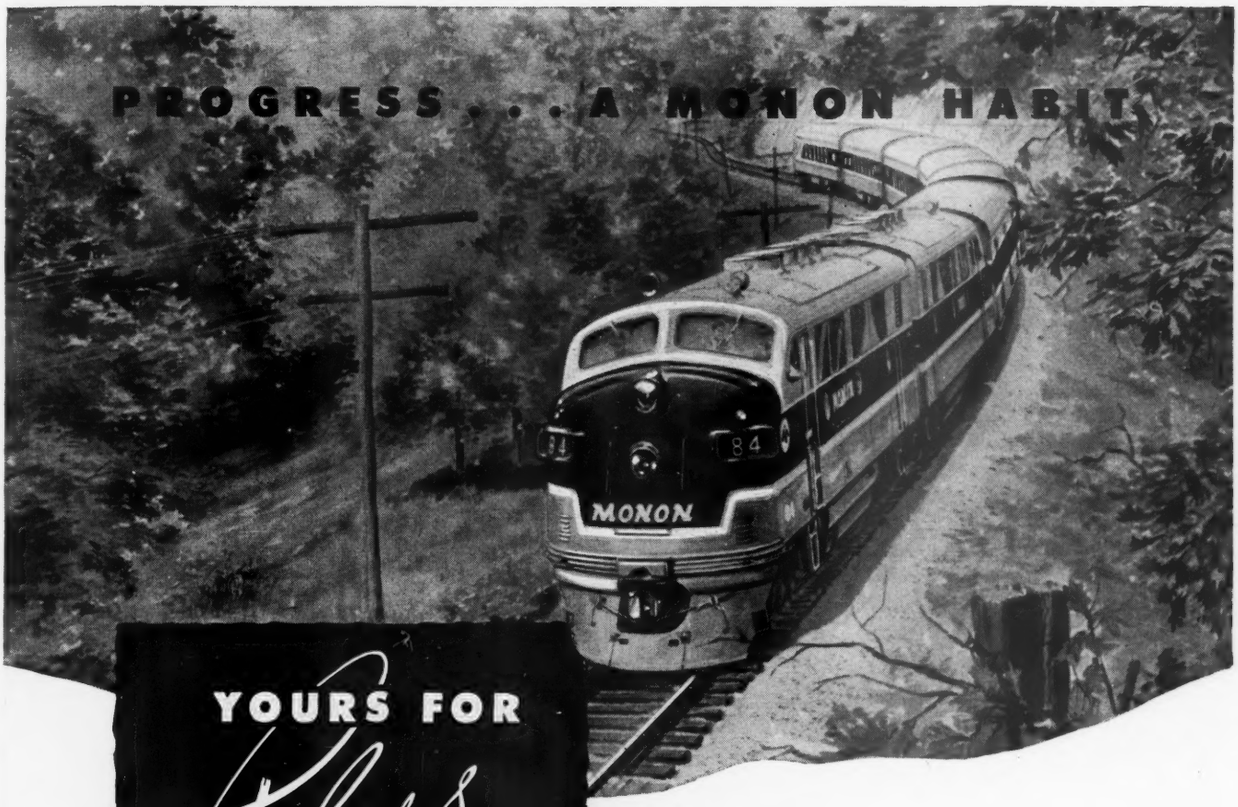
The Pyle-National Company, Chicago, has augmented its line of railway electrical equipment with a new overhead type of illuminator, called the Anchorlite, for lighting, temporarily, the insides of freight cars, trucks and trailers while at loading platforms. The Anchorlite consists of a lamp and anchor arm suspended from the lower end of a spring-loaded hanger which can be stretched up to 3 ft. When the light is used at a truck or trailer loading dock the hanger is suspended by a swivel from a stationary overhead bracket. In a freighthouse installation the hanger is designed to be suspended from a messenger wire on which it can slide from car to car as needed.

To provide illumination the lamp is pulled downward and the anchor arm hooked under the top of the doorway, where, because of spring tension in the hanger arm, it will support itself and not interfere with loading operations. All possible variations in freight-car door height are provided for in the design of the device.

The Anchorlite is released from the operating position by unhooking it with a slight downward pull. Upon release it automatically retracts to an overhead, out-of-the-way position. If the freight car or trailer is moved while the Anchorlite is still hooked in position, no damage will occur, for excessive tension automatically releases the anchor arm.

The manufacturer reports that the Anchorlite has a number of advantages over portable hand lamps and extension cords. For one thing it is said to save man-hours because it is always available for immediate use, yet always overhead out of the way. No time is lost improvising a support as for hand lamps, or finding extension cords and plug outlets, or untangling cords. It reduces fire and accident hazards because it is grounded to its support, thus reducing the possibility of short circuits and shocks.

The Anchorlite can also be used for lighting the undersides of equipment in locomotive or car shops, and for lower bin lighting in warehouses and stockrooms. It is available with a mercury switch which automatically turns on the light when the anchor arm is hooked in position and turns it off when the arm is released.



YOURS FOR *Plus* SERVICE

The MONON is a servant of the public. Everything it *is* and *does* is predicated upon serving *you* to *your* satisfaction. The MONON realizes that not only the success but the very *life* of this road is based upon meriting *your preference* and *your continued patronage*.

That is why the MONON of today offers the *last word* in diesel-powered equipment . . . completely streamlined passenger cars . . . freight-carrying cars of the newest types . . . new track and ballast and other important improvements . . . plus a personnel that is alert at all times to the importance of the patron's interests.

Monon means "swift-running", smooth-running, modern passenger and fast-freight service.

Prove to yourself that Monon is your best choice. When you *ship, specify Monon.* When you *travel, go Monon.* The Monon Traffic Department will welcome the opportunity to explain how it can facilitate your shipments and make your travels more comfortable.

MONON

THE HOOSIER LINE

CHICAGO, INDIANAPOLIS AND LOUISVILLE RAILWAY COMPANY

A MILESTONE IN 1851 — 100th ANNIVERSARY Great Lakes to the Sea Erie Railroad — 1951 AMERICAN HISTORY

Nailed down...the smooth ride!

The sight of trackmen using hammers to nail down spikes is one you won't see much on the Erie Railroad any more.

For the machine you see in this picture drives the spikes mechanically through holes in the tie plate into the wooden tie and does it better and faster with less effort. It hammers in from 120 to 150 six-inch spikes an hour, helping in the upkeep of Erie's 2200 miles of track between New York and Chicago. Last year the Erie spent nearly $20,000,000 to insure a smooth trip for everything that moves along on Erie tracks!

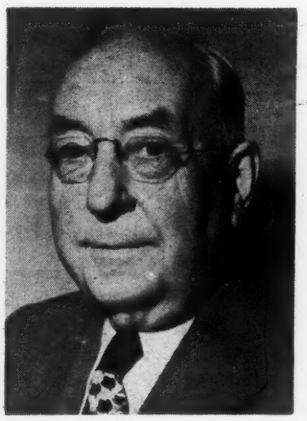
This investment in the maintenance of Erie's famed heavy-duty roadbed contributes to the railroad's readiness to serve our country well in peace or war.

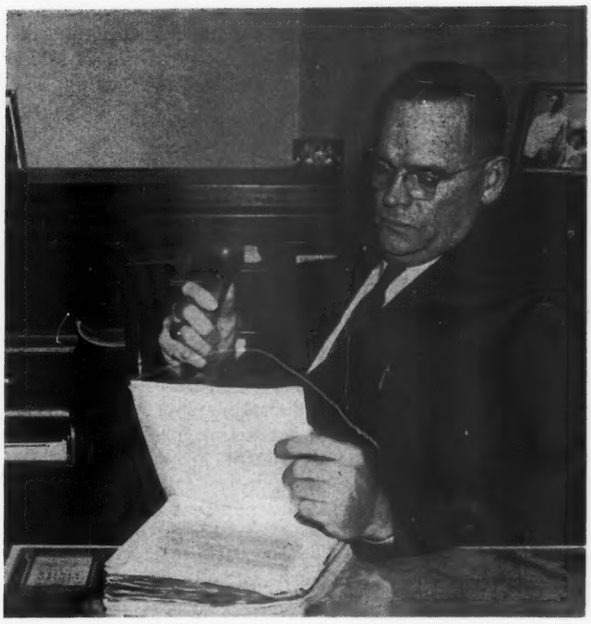
Here again is another example of Erie's progressive railroading. It is this constant effort to build a better railroad that has earned Erie the reputation as one of the fine railroads of America —and one of the many reasons why so many shippers say "Route it Erie!"

Erie Railroad

Serving the Heart of Industrial America

ERIE





Col. F. W. Green, who retired from the presidency of the St. Louis Southwestern on July 1 (left), and his successor in that position, H. J. McKenzie (right)

McKenzie Succeeds Green on Cotton Belt

On July 1, H. J. McKenzie, executive vice-president of the St. Louis Southwestern, took over as president, succeeding Col. Frederick W. Green, who retired. Preliminary announcement of the change-over was published in *Railway Age* of June 11.

The 1,570-mile road's new chief—known to his friends as "Big Mac"— is a 6 ft. 3 in. Texan, with the deep-tanned complexion of an out-of-doors man. Until he came with the Cotton Belt at the beginning of this year, Mr. McKenzie's entire railroad career was spent in the engineering department of the Southern Pacific Lines in Texas and Louisiana. For the S.P., he directed important construction and line relocation work in West Texas. Included in his "assignments" were the famous $1,200,000 Pecos River bridge, near Langtry, one of the highest railroad spans in the world, completed in 1944, which was the basis of an award for outstanding beauty by the American Institute of Steel Construction in 1948. Following flood washout of the road's main line bridge over Devils river, for the second time in 17 years, he completed successfully the difficult job of reconstructing the bridge at original elevation, then raising it 15 ft. under traffic, despite the turbulence of the stream.

The Cotton Belt's new president points to two major means of helping solve the railroads' problem of rising costs. One of them is to build and maintain more and better supervision—which he dubbed the railroads' "cheapest but most valuable asset." In his opinion, no employee is more diligent, loyal or safety-conscious than his foreman. And the foreman does no better job than he sees *his* superior perform. And so on.

The other means is mechanization. "A big part of a railroad officer's responsibility is to be on the watch constantly for every new or improved device or method which will enable him to cut costs and to use it without delay, if and as money is available. He shouldn't wait for the idea to be brought to the railroad industry; he ought to go after it." In the Cotton Belt he will have a property which has already accomplished much along these lines, especially on the track and in freight stations. It will be one of his chief interests to see that further mechanization is effected whenever the savings in operating expense warrant. He will further motorize, where practical, both section and floating track gangs and expects to move many of his bridge and building outfits in trucks.

In 1949 Mr. McKenzie distinguished himself on the S. P. by submitting a comprehensive plan for reducing maintenance expenditures without relaxation of standards. Among the important features of his "formula" were increased supervision (to enhance the output of employees in the right place at the right time); higher standards in hiring new personnel; longer track sections (where feasible and profitable); adherence to types of construction and maintenance requiring the least application of labor; and establishment of a floating extra gang, fully mechanized, on each roadmaster's district. His proposals were accepted and put into operation on the Texas & Louisiana Lines.

Based on his experience, Mr. McKenzie is convinced that "human relations constitutes one of the most important jobs a railroad officer has today. Its effect can make or break him and his company." This is a conviction—not merely speech-making or fadism. His belief was further strengthened by his recent experience as a student in the three months' Advanced Management Program at the Harvard University Graduate School of Business Administration. Among most of the 150 high-ranking successful business executives with whom he "lived, worked and studied" during residence, the course "administrative practices" was rated in first or second position. This Mr. McKenzie defines as "principally a human relations course, designed to provide each man with an opportunity to develop, so far as an individual can, an attitude, frame of mind or way of thinking about human situations so that he will be a more useful and more responsible member of an organization, whatever his capacity and position."

The new president enjoys the pleasure of taking over a railroad which is handling a great deal of business;

has an excellent reputation with shippers for service; and is in good shape physically. There is, he says, little if any deferred maintenance in the plant. For example, the railroad is "tied up" better that most—due not to lavish expenditures in the recent past, but to judicious application and steady, uninterrupted renewals for a long period back.

This year new rail will be laid on some 57 miles of track and 100 miles of line will be patch ballasted. Yards generally are adequate to the road's growing traffic and well located with relation to sources of traffic and optimum classification. Major freight stations are relatively modern buildings—with but few exceptions—and are mechanized to the extent size and traffic make it profitable.

Grade and curve characteristics of the main lines are such that line relocations do not constitute an important potential source of either operating savings or service improvement. No major construction projects are now in progress. Several flood control projects are in the talking stage, but actual work by or for the railroad is remote. In 1950 more than 42 per cent of freight locomotive-miles and 85 per cent of yard locomotive-hours were performed by diesel power. Orders were placed for new diesels in 1950 and 1951—thirty units in all—and the railroad has adapted its property adequately to increased use of diesel power. Two additional 200-ft. inspection pits are now being constructed at Pine Bluff, Ark., the main servicing and shopping point on the road, making four pits at that point, all of which will be covered with a new steel shed.

Traffic Conscious

When Mr. McKenzie joined the Cotton Belt he made it his business to go about with traffic officers calling on shippers. He was amazed at how many shippers volunteered praise for the road's service. He was even more surprised when, at the Harvard management course, and the news of his going with the Cotton Belt came in, many businessmen colleagues, who are not transportation men, congratulated him on joining "that small road that gives such good service."

The Cotton Belt is a "bridge" line. In 1950 a large amount of its tonnage was received from connections—a substantial portion of which was delivered *to* connections as well. Having to make a living in a highly competitive territory, the Cotton Belt must produce consistently to attract and keep this volatile traffic. Among its weapons are fast trains, run on schedule; a good car supply; minimum delays at points of interchange; and above-average control of car movement and notification of shipper. Its affirmative policy on less-carload service not only brings to it an increasingly heavy merchandise traffic but also attracts carload business— on the "satisfied customer" concept.

Twenty years ago the road established the "Blue Streak" freight train and set a new standard in service for l.c.l. and forwarder traffic. This train is still one of the world's fastest, with an average speed, terminal to terminal, of 29 m.p.h. for its run of 752 miles. The Cotton Belt's high grade of service also figures large in its capture, as intermediate carrier, of a large share of perishables north and east from the Rio Grande valley of Texas. The latter is very close to the heart of the new president, for he himself was concerned with building construction on new lines by the S. P. into the valley in the early Thirties and erected many of the fruit and vegetable loading sheds along its lines.

Proud as he is of the Cotton Belt's reputation for freight service, Mr. McKenzie is loathe to boast about it and asked the *Railway Age* interviewer to "go easy on the praise." He has asked his industrial development department "merely to double the number of new industries located on line within the next few years." The time should not be too far off when the Cotton Belt can, with good conscience, crow more than it is now willing to do.

Colonel Green's Career

The retiring president of the Cotton Belt spent 35 years in the service of that road—three years in the Executive Department, 27 as its chief operating officer, and five as its executive head. It was under his leadership that the Cotton Belt came out of lengthy reorganization proceedings with all its stockholders' interests intact—indeed, with the market price of their holdings vastly increased from what it had been in "the good old days." This feat is probably without precedent in railroad history.

Born in 1877 in Rock Island, Ill., F. W. Green began his railroad career at the age of 16 as a messenger for the railroads serving the 1893 World's Fair in Chicago. In 1901 he became a Great Northern trainmaster and three years later, when he was only 27, was made superintendent of the St. Louis, Iron Mountain & Southern (now M.P.). From 1906 to 1911, he served as general superintendent, and from 1911 to 1916 as general manager, of the Louisiana & Arkansas. In 1916, Colonel Green went to the Cotton Belt as assistant to the president. The following year he was commissioned a captain in the army, commanding Company A of the 12th Engineers. He was later promoted to lieutenant-colonel.

As superintendent of the Army Transport Service at Brest and St. Nazaire, France, and commander of the First Grand Division Transportation Corps, he won the Distinguished Service Medal and the French Legion of Honor for his work in organizing transportation services for the American Expeditionary Forces.

His citation for the D.S.M. read:

"Without previous organization or sufficient personnel . . . and confronted by many serious obstacles, he, by sheer force of will, supported by untiring energy . . . created the organization which was competent to unload the largest ships in a surprisingly short time."

Following his discharge from the army in 1919, Colonel Green became vice-president—operations of the Cotton Belt. He was made chief executive officer in 1946, and in 1947 became president. He was awarded an honorary degree as Doctor of Engineering in 1940 by the University of Missouri School of Mines and Metallurgy.

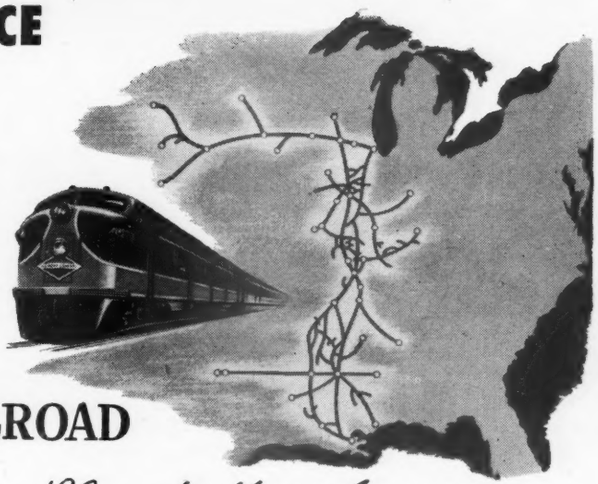
Mr. McKenzie first entered railroad service with the S.P. during the summer months of 1926. Following his graduation from Texas A. & M. College, where he was an honor student and received his B.S. degree, he returned to the S.P. in July 1927 as draftsman, and until 1936 was employed in various capacities in the engineering department of that railroad. During the next nine years he held the positions of chief draftsman, assistant to chief engineer, and assistant chief engineer until his promotion in 1945 to chief engineer with the S.P.

On January 1, 1951, Mr. McKenzie was brought to the Cotton Belt as executive vice-president, in anticipation of Colonel Green's retirement.

In addition to his studies at Texas A. & M., where he was a member of the track and rifle teams for three years, the new president put in three years of postgraduate study at Houston Engineering College and completed, just prior to going to the Cotton Belt, the Advanced Management Program at Harvard. He is a licensed engineer and architect and past president of the Houston Engineers' Club.

PUSH BUTTON YARD SERVICE

Electronics control the rapid classification of freight cars in a modern Illinois Central yard. The board shown above controls the speed of each car, helps protect shipments against damage.

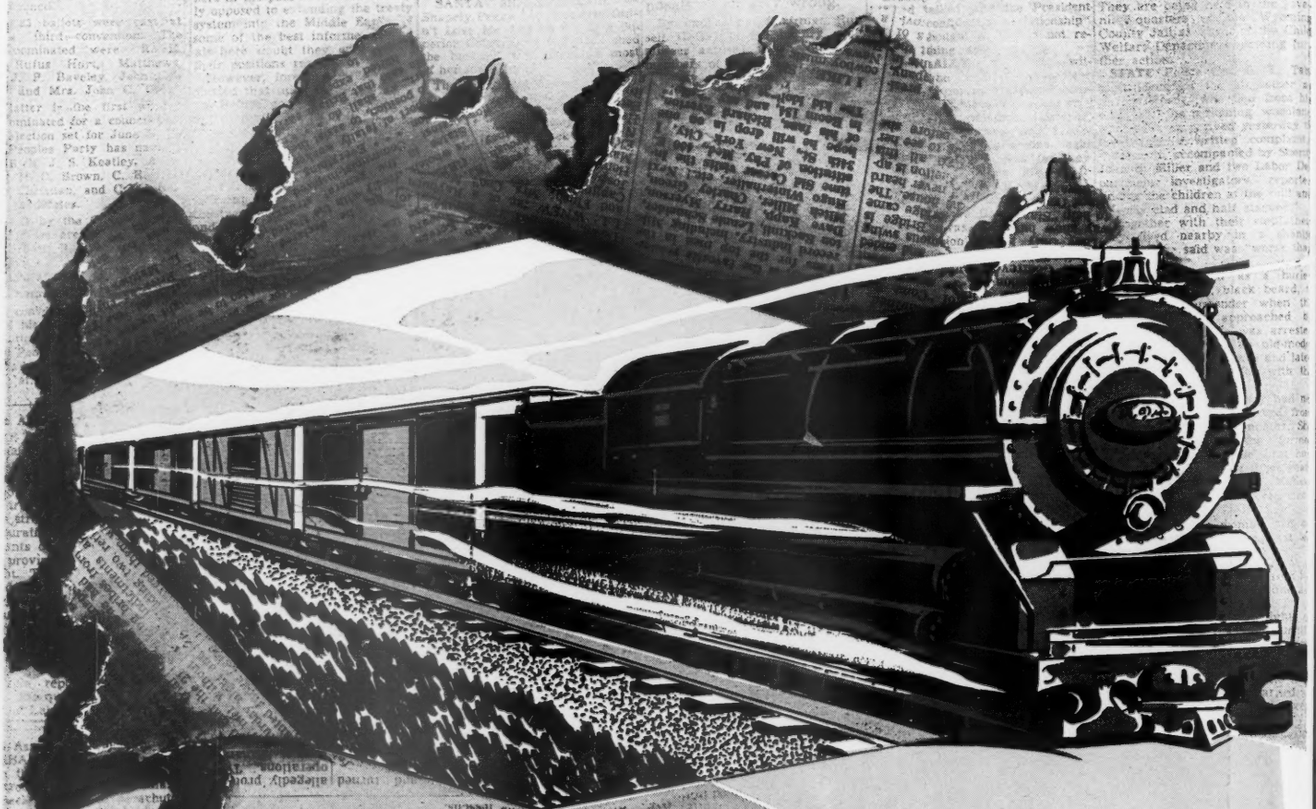


ILLINOIS CENTRAL RAILROAD

For 100 Years - the Main Line of Mid America

GOOD "NEWS"

And this is it!



THE CHESSIE ROUTE FOR

TRAVELS FAST...

C & O Announces a Great New Freight Train

"The Speedwest"

SAVES A DAY ON THE WAY FROM NORFOLK TO CHICAGO

Something new has been added to the C & O's great east-west freight service—*"The Speedwest!"* It operates from Norfolk to Chicago and Toledo, and there connects with the Pere Marquette District trains for Michigan and the Northwest via car ferry service. This all-merchandise speedster will save you a full day in transit time. *"The Speedwest"* is a companion train to the C & O's eastbound *"Expediter."* So save a day *"The Speedwest"* way and let your shipping go C & O.

SCHEDULE OF

"The Speedwest"

	(Example)	
Lv. Norfolk (Sewalls Point)	12:30 AM Mon.	EST
Lv. Newport News	4:30 AM Mon.	EST
Lv. Richmond	8:45 AM Mon.	EST
Lv. Lynchburg	3:15 PM Mon.	EST
Ar. Cincinnati	9:25 AM Tues.	EST
Ar. Lexington	10:30 AM Tues.	CST
Ar. Louisville	4:40 PM Tues.	CST
Lv. Cincinnati	1:00 PM Tues.	CST
Ar. Chicago Produce Terminal	2:30 AM Wed.	CST
Ar. Chicago Union Stock Yards	4:30 AM Wed.	CST
Ar. Chicago CR & I R.R. and C.J. Rwy.	5:00 AM Wed.	CST
Ar. Columbus	12:01 PM Tues.	EST
Ar. Toledo	5:10 PM Tues.	EST
Ar. Detroit Union Produce Terminal	2:30 AM Wed.	EST
Ar. East Buffalo	10:00 PM Wed.	EST
Ar. Grand Rapids	12:30 PM Wed.	EST
Ar. Ludington	3:00 PM Wed.	EST
Ar. Manitowoc (C & NW)	9:45 PM Wed.	CST
Ar. Kewaunee (GBW)	10:30 PM Wed.	CST
Ar. Milwaukee (CM St P & P)	2:30 AM Thurs.	CST
Ar. Manitowoc (Soo Line)	9:45 AM Thurs.	CST
Ar. Milwaukee (C & NW)	10:15 AM Thurs.	CST

FAST FREIGHT

CHESAPEAKE AND OHIO RAILWAY

C AND O FOR PROGRESS

GENERAL NEWS

H.&M. Sues I.C.C.

(Continued from page 35)

At a preliminary hearing on June 26, before Judge Sidney Sugerman, the company's application for a temporary order restraining the commission from suspending the proposed increase was referred to a three-judge statutory court which will meet on July 5.

Meantime, hearings on the proposed increase began at New York on June 25 before Examiner Martin J. Walsh. H. & M. President William Reid testified that competition from buses and private automobiles has reduced the company's passenger traffic since January 1948; that it faces an estimated deficit of $1,200,000 for 1951, and that without the fare increase the company will have to halt its car and station improvement program (*Railway Age*, June 18, page 36). Mr. Reid further said that bondholders of the line would apply for a receivership if the petition to increase fares is not granted.

Pacific Coast Advisory Board Holds 85th Meeting

Railroad passengers of the future will travel faster but just as safely, and freight service will be speeded and streamlined, J. L. Haugh, former vice-president of the Union Pacific, told the Pacific Coast Transportation Advisory Board and the San Diego Transportation Club, at a joint luncheon held in connection with the board's 85th regular meeting at San Diego, on June 15. Mr. Haugh, speaking on "The Future of Transportation," said "vast opportunities await far western transportation leaders, because the West will continue to grow in population and industry."

W. E. Callahan, manager of the Open Top Section of the Car Service Division, Association of American Railroads, predicted that production of military supplies will probably triple by the next summer. "It is urgent," he told the board, "that the railroads receive sufficient materials to build at least 10,000 freight cars each month, in order to meet rearmament program requirements."

The board's next regular meeting will be held at Fresno, Cal., September, 13-14.

Jury Finds Road Guilty But Court Dismisses Case

A notice issued June 18 by Secretary W. P. Bartel of the Interstate Commerce Commission announced that on May 14, in federal court at Salt Lake City, a jury returned a verdict of guilty against the Ogden Union Railroad & Depot Co. and O. S. Eckersley, engine foreman of the carrier, following trial of the defendants on an information charging them with violation of the commission's Explosives Regulations. The information alleged that the regulations were violated in the cutting off of 12 carloads of explosives while they were in motion in the yard of the carrier at Ogden, Utah.

"On June 1 defendants were called for sentence by the court at Salt Lake City, whereupon the court discharged both defendants without fine or imprisonment," Secretary Bartel said. "The commission is informed that both defendants gave assurances to the court that the regulations would be strictly adhered to and enforced hereafter and, also, that the court took into consideration assertions of a long record for safety established by the railroad."

New Industrial Area Planned by Western Pacific

At a cost of about three quarters of a million dollars, the Western Pacific has acquired more than 300 acres of land just south of Milpitas, Cal. The road plans to develop the property immediately as a site for industry by installing trackage, water mains, sewer facilities, etc. A 20-inch gas main already serves the property. In announcing the transaction, the W.P. said several major industries are already interested in locating there.

Effect of Diesel Trend Unpredictable, Says Gordon

It is impossible to predict the long-range effect of the present trend to diesel locomotives, Donald Gordon, chairman and president of the Canadian National, said on June 14 in an address before the Board of Trade at St. John, N.B. "If the diesel retains its present advantages of economy and efficiency," he added, "then coal-burning locomotives may well become as extinct as the

CLOGGING THE STREETS OF NEVADA, IOWA, some 86 specimens of "America's Number One Carrier"—so-called by itself—are shown awaiting a taxpayers' snowplow to dig them a clear lane on the Lincoln highway (U.S. 30). In contrast, the Chicago & North Western, which was buffeted by the same blizzard last March, asked help from no one, as evidenced by the snowplow scene near Ivanhoe, Minn. These are the two photographs referred to in the editorial "Part Truth, Part Fiction" in the May 14 *Railway Age*. Many readers have asked that we reproduce these pictures, which originally appeared in the C. & N. W.'s "Newsliner" for the month of April

Des Moines Register-Tribune Photo

Now! A FAST WAY TO ROUTE YOUR ORE: B&O—THROUGH BALTIMORE!

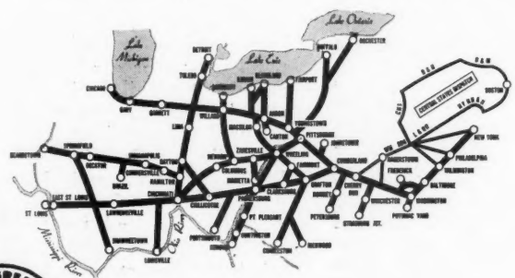
AIR VIEW OF B&O's NEW IMPORT ORE PIER

Notice the two unloaders ❶, connected by a conveyor belt with the discharge bins ❷. The ore facility is next to B&O's coal pier ❸, and to the spacious yards ❹ which accommodate about 2,000 cars.

America's most modern ore facility completed by the B&O

With a pier 650 feet long and two giant unloaders, this new $5,000,000 import ore facility is the first of its kind to be built on the eastern seaboard. Its completion makes Baltimore, more than ever, a strategic gateway for the world's ores—iron, manganese, chrome, vanadium, and others. Shippers now have numerous reasons for routing their ore through this thriving port so convenient to the steel areas. For instance:

- The new facility has a rated capacity of about 3,000 tons an hour.
- Vessels can be released and turned in the shortest possible time.
- Ore trains leaving facility can by-pass the Baltimore area's heavy traffic.
- Facility is coordinated with B&O's coal pier and supporting yards; empty cars will readily be available.
- When pier is extended, handling capacity will be doubled; two ships can then be worked at once.



LINKING 13 GREAT STATES WITH THE NATION ®

BALTIMORE & OHIO RAILROAD

Constantly *doing things* — better!

C.B.&Q. OFFERS FOLDER OF FREIGHT SCHEDULES

Shippers along the Chicago, Burlington & Quincy can now check the schedules of the system's principal freight trains just as easily as they can determine when the next "Zephyr" leaves for Chicago.

A new 24-page folder, attractively printed with art work in two tones of blue, gives Burlington shippers condensed freight schedules between all major points in a series of 117 separate timetables. Connections with foreign lines and arrivals at off-line points are also shown on each table where appropriate. Lists of points of interchange with other roads and of both regular and "snow" icing stations —with details as to service available at each—are also included. The Burlington has previously issued condensed freight schedules, but the new one is unique in that it is similar in style to passenger service folders.

dodo. But research is going on in many quarters aimed at development of new power plants which would make more efficient use of coal."

Experience on the C.N. system with diesels has established that savings as high as $150,000 a year per double diesel unit can be effected, Mr. Gordon continued. "If the current price relationships between diesel fuel oil and coal are maintained or widened, then our coal-burning locomotives must be gradually retired. On the other hand, advances in type or design of coal-burning locomotives could well alter or even reverse that trend."

Speaking on June 12 at the annual dinner of the Board of Trade in Charlottetown, P.E.I., the railroad officer said truck operations are siphoning off railroad net revenues by taking the most profitable business. The dilemma facing railroads, he continued, "is that somewhere, somehow they must recover costs which cannot be directly allocated to any particular traffic. If they attempt to do so with higher rates on basic commodities an important part of the traffic may be choked off. If they try to find a margin of return on merchandise traffic, they create a more profitable field of opportunity for truck operations." As long as the railroad freight rate structure is designed to give favorable rates to bulk shippers and to primary producers, he concluded, railroads will be unable to give the public the full benefit of their cost advantages in handling truck-competitive traffic.

Anti-Trust Complaint Names Three Bus Lines

Three bus lines which operate the Union Bus Terminal at Tulsa, Okla., were named as defendants in an anti-trust complaint filed June 26 by the Department of Justice. The complaint, launching a civil proceeding, was filed in the federal court at Tulsa.

As summed up in a press release issued by the department in Washington, it charged that the Southwestern Greyhound Lines, the Transcontinental Bus System, and the Missouri, Kansas & Oklahoma Coach Lines operate the Tulsa terminal "as a means of suppressing competition and channeling passengers through Tulsa to their bus lines and to the exclusion of competitors."

The complaint, as the press release also put it, "further alleges that the defendants use their control of the. . .terminal to coerce other bus transportation concerns from competing with the defendants." Quoted in the release was Assistant Attorney General H. G. Morison, who asserted that the action "seeks to open the gateways at Tulsa to insure to passengers a free choice of transportation services. . . ."

More Roads Are Awarded Amortization Certificates

Certificates of necessity authorizing accelerated amortization of facilities for tax purposes have been awarded to 14 railroads or related transport agencies, according to the Defense Production Administration.

The D.P.A. issues the certificates upon recommendation by the Defense Transport Administration, and the present group is for the period June 1-15.

Roads obtaining certificates, together with the amounts involved, are listed below. The percentage shown in each case is the amount for which accelerated amortization has been approved.

Atlantic Coast Line, $342,418, 65 per cent.

Alabama Great Southern, $625,700, 80 per cent.

Central of Georgia, $4,362,667, 65 per cent; and $62,040, 65 per cent.

Central West Refrigerator Despatch, Chicago Freight Car & Parts Co., $1,900,000, 80 per cent.

Conemaugh & Black Lick, $1,443,000, 65 per cent; and $85,000, 50 per cent.

Georgia Northern, $80,879, 65 per cent.

Georgia Southern & Florida, $274,500, 80 per cent.

Great Northern, $1,450,000, 80 per cent.

Louisville & Nashville, $2,175,512, 65 per cent.

Nashville, Chattanooga & St. Louis, $6,263,211, 65 per cent.

New Orleans & Northwestern, $7,195, 65 per cent.

New Orleans & Northeastern, $567,300, 80 per cent.

Shippers' Car Line Corporation, $611,064, 80 per cent.

Locomotive Finished Material Company, $182,130, for diesel-electric locomotive castings, 75 per ccent.

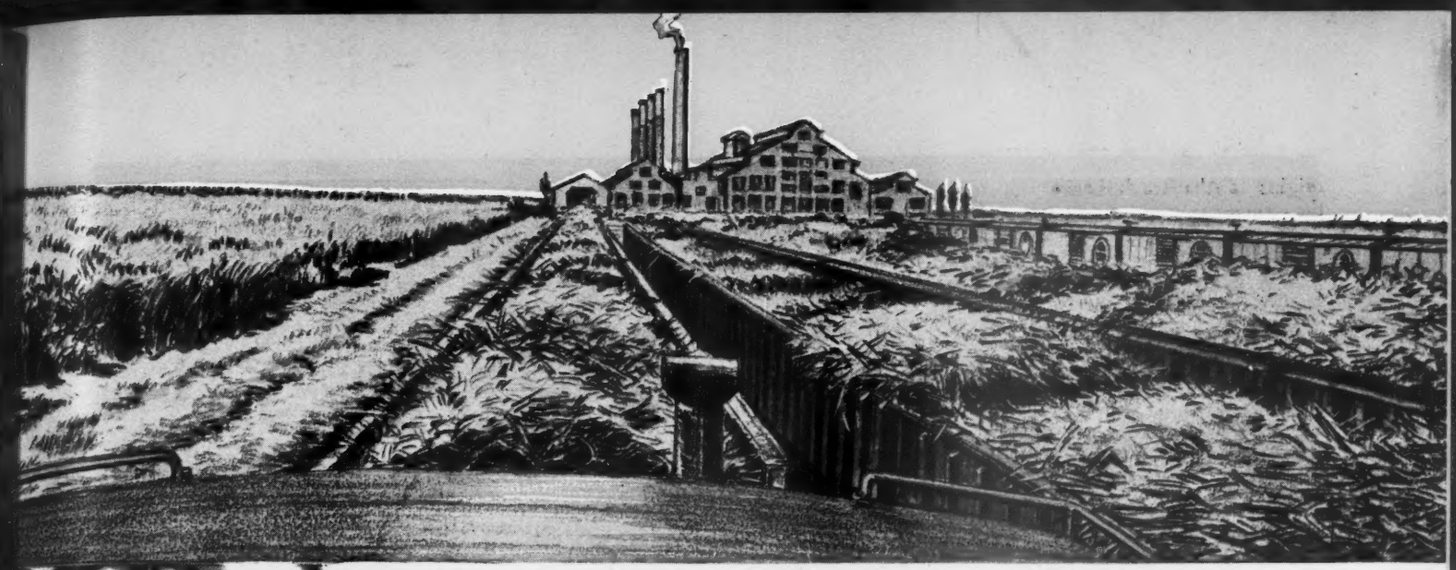
Wisconsin Central, $863,840, 80 per cent; and $1,340,200, 65 per cent.

Truckers Must Lift Rates On Tobacco to Rail Level

Because "it seems clear that the tobacco traffic is not bearing its proper share of the transportation burden," the Interstate Commerce Commission has halted an impending rate war by requiring motor carriers to raise their rates to the rail basis. The rates involved apply to movements of manufactured tobacco from Durham, N. C., Reidsville, and Winston-Salem, and Richmond, Va., and Petersburg to destinations in Central, Trunk Line, and New England territories.

The title case covered by the commission's report was docketed as I. & S. No. 5666. It dealt with the railroads' proposal to cut their commodity rates from the North Carolina

TO HELP RAILROADS WITH THEIR PUBLIC RELATIONS WORK, the Electro-Motive Division of General Motors Corporation is now offering these hard plaster quarter-inch scale E.-M.D. locomotive models at a cost of only $4 per unit. All current E.-M.D. types except the 600-hp. switcher are available. Each model comes unmounted and unpainted except for a primer coat, thus enabling purchasing railroads to mount and paint them in their own colors to fit into their particular ideas for display advertising. The relatively low cost of these models (heretofore only working models costing as high as $150 per unit were available) opens new fields for railroad advertising and publicity in window displays, television shows, etc. The models are not on sale to the public and may be obtained only through E.-M.D.'s public relations department at La Grange, Ill., either by letter from a railroad officer or on a purchase order from a railroad. The locomotives in the foreground here have been painted by E.-M.D. for demonstration purposes



RAPID AND EFFICIENT TRANSPORTATION SERVICE FOR FLORIDA'S CANE GROWERS AND PROCESSORS...

Efficient transportation has played a tremendous part in the rapid advancement of Florida's sugar industry. Dependable movement by COAST LINE of cane from the fields and products from the sugar mills has been instrumental in this rapid development.

ATLANTIC

COAST LINE

RAILROAD

origins to the truck basis, and with the truckers' counter-proposal to reduce their rates so as to maintain present relationships.

These proposals were published in tariffs which have been suspended since their proposed effective date of June 15, 1949. Meanwhile, similar reductions in rail rates from the Virginia origins have been in effect since that date, no protest against them having been filed. The commission nevertheless investigated them in view of their relationship to the rates from the North Carolina origins.

The present rail rates from the North Carolina origins include "base ates" and "incentive rates." The base rates" and "incentive rates." The base mum weight of 36,000 lb., and they range from $1.08 per 100 lb. to New York to $1.61 per 100 lb. to Milwaukee, Wis. The incentive rates are applicable on that part of a carload which is in excess of 40,000 lb., and they range from 86 cents to $1.29.

In the commission's report were figures (based on an average weight of 52,485 lb.) which indicated that the average rail rates ranged from 102.76 cents to New York to 153.38 cents to Milwaukee. Competitive motor carrier rates range from 98 centes to $1.46, the level to which the railroads proposed to cut their base rates. The truckers' counter-proposal contemplated reduced rates ranging from 93 cents to $1.39, which would have approximated the railroads' "average rates" after the proposed rail reductions became effective.

The rail level to which the truck rates must be increased under the commission's finding is that of the railroads' base rates. The truckers wanted to remove the incentive-rate factor from the rail structure, but the commission refused to go along. It referred to the railroad defense of the incentive plan and to the fact that shippers were on record in favor of the idea. Then it added its own endorsement, saying:

"We agree that this method of ratemaking is generally sound where it tends to increase carloadings and thus reduce the carriers' operating costs."

Adjustments in conformity with the foregoing findings must also be made in the rates from the Virginia origins. Such adjustments are to include application to those rates of general increases authorized on and since August 2, 1949, which was the date of the final decision in Ex Parte 166. Since then have come the Ex Parte 168 advance and the interim increase in the still-pending Ex Parte 175 case.

Evidence reviewed in the commission's report pointed up the fact that the railroads have been losing the manufactured-tobacco traffic, which includes cigarettes, since 1940. In that year they handled 4,023 carloads from North Carolina origins to all destinations; in 1949, they handled 2,000 carloads. Meanwhile, the production of cigarettes at the same points increased from 92.3 billion to more than 216.2 billion (1948 total).

"The decline in the shipments by rail in the face of a steady increase in production," the commission said, "is apparently due in large measure to the fact that since July 1, 1946, the rail rates generally have been higher than the motor rates. It is significant that since June 15, 1949, when the rail lines established base rates from Richmond generally the same as the motor rates, and incentive rates 20 per cent less, the movement by motor from that origin to Trunk Line and New England destinations, so far as appears, has not declined as a whole and has increased in some instances."

The commission's conclusion that the tobacco traffic "is not bearing its proper share of the transportation burden" was based on its consideration of "the obviously high value of the traffic and the fact that the present rail base rates have not been subjected to all of the authorized increases, as has most other traffic." To permit a further reduction in the rail and truck rates "would only serve to aggravate this situation," the commission added.

CAR SURPLUSES, SHORTAGES

Average daily freight car surpluses and shortages for the week ended June 23 were announced by the Association of American Railroads on June 28 as follows:

	Surplus	Shortage
Plain Box	17,534	2,673
Auto Box	0	15
Total Box	17,534	2,688
Gondola	55	3,190
Hopper	0	2,704
Covered Hopper	0	70
Stock	1,886	10
Flat	0	887
Refrigerator	3,673	0
Other	229	28
Total	23,377	9,577

MORE THAN 100 TRAFFIC REPRESENTATIVES of the Missouri-Kansas-Texas from the midwestern United States attended a recent regional traffic conference in St. Louis. This was one of four such meetings held by the Katy's traffic department during May, the others being at San Francisco, New York and Dallas. Standing in the rear are Frank Ahrens, chief clerk to vice-president of traffic; R. C. Duffin, freight traffic manager; C. E. Veatch, general freight agent; T. L. Hirshman, freight traffic manager, Chicago; J. F. Hennessey, Jr., vice-president—traffic; E. A. Bohmeyer, passenger traffic manager; R. C. Trovillion, assistant to vice-president—traffic; C. R. McDonald, freight traffic manager, and Fred McGee, assistant freight traffic manager

S. L. Newman Now Heads D.T.A. Manpower Division

Samuel L. Newman has been appointed director of the Manpower Division of the Defense Transport Administration. He has been acting director since May 1, when former director P. L. Siemiller resigned.

Mr. Newman retired in September 1950 from the position of general vice-president for the northeastern states of the International Association of Machinists. Mr. Siemiller has returned to his own like position with I.A.M.—general vice-president for the midwestern states.

ORGANIZATIONS

At its recent first "birthday" meeting, held at New Haven, Conn., the **New Haven Railroad Diesel Club** elected R. W. Hooper, master mechanic, as its president; J. A. Croke, general foreman, as vice-president; G. C. Fahy,

Fine Service for Diesels Helps Speed Freight on the M. & St. L. Railway

ONE OF the finest, most efficient machines in the World is the Diesel-electric Locomotive of today. One of the things that make it more efficient—and economical—than the steam engine is the fact that it needs less service and fewer repairs.

But the work the Diesel *does need* must be the best, if it is to do the great transportation job of which it is capable. That is the sort of care that Diesels get on

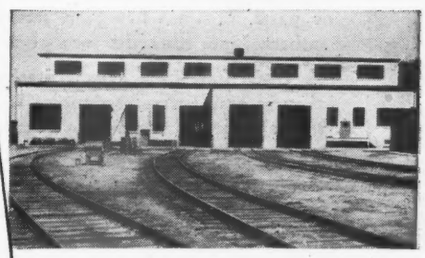
The Minneapolis & St. Louis Railway

In new buildings, scientifically designed and equipped, skilled mechanics do the work on the large and growing fleet of M. & St. L. Diesels. One Diesel House is at the Cedar Lake Terminal in Minneapolis, headquarters city of the M. & St. L. since its beginning 80 years ago. Another, similar in design but even newer, is at Marshalltown, Iowa, where the Railway's principal car shops are located.

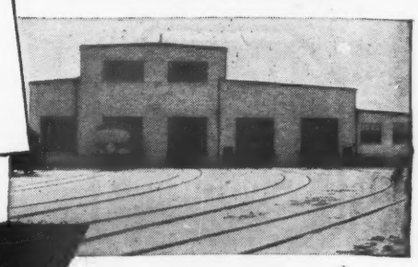
In 1951, Diesel Locomotives are powering all M. & St. L. Trains. The modern Diesel Shops are helping the M. & St. L. to maintain its reputation for

***Fast Dependable Freight Service* in the Great Midwest**

Interior of Minneapolis Shop



Cedar Lake Diesel Shop in Minneapolis



The Marshalltown Shop

THE MINNEAPOLIS & ST. LOUIS RAILWAY CO. — THE PEORIA GATEWAY

The **Minneapolis & St. Louis** *Railway*

Fast Freight Service via the Peoria Gateway

The TWIN CITY with a *Triple Name* IS ONE OF OUR FAVORITE STOPS!

TEXARKANA, U.S.A. — built in two states . . . named for three . . . center of industry and commerce for parts of four—has been served by Kansas City Southern Lines since the turn of the century.

The city's State Line avenue marks the boundary of Arkansas and Texas. Sections of Louisiana and Oklahoma also are in Texarkana's trade area.

And Texarkana's balance is more than geographical — agriculture, industry and culture each plays its proper role in the city's development.

Lumber — upon which the city was founded — still is a major industry. At Texarkana is located the South's largest mail terminal and three "world's largest" plants — clay pipe, lumber treating, ordnance. The city also is an important livestock shipping center and wholesale market for hardware, groceries and cotton.

Texarkana is a key gateway to the Southwest and South, with Kansas City Southern Lines and our fast dieselized freights the "straight shot" south from Kansas City and north from five Gulf ports — Port Arthur, Beaumont, Lake Charles, Baton Rouge and New Orleans.

J. M. Scott
Vice-President—Traffic

FOR QUICKEST DELIVERY SOUTHWEST AND SOUTH
It's KCS 77 out of Kansas City at 8:40 nightly!

Everett Q. Davis, district freight agent of the Seaboard Air Line at Charlotte, N. C., who has been elected president of the Charlotte Traffic and Transportation Club

material supervisor, as treasurer; B. E. Bacon, diesel instructor, as corresponding secretary; and R. J. Fitzgerald, locomotive clerk, as recording secretary. About 450 men, from all departments of the railroad, are members of the club.

The **Traffic & Transportation Association of Pittsburgh** recently elected the following officers for the year 1951-1952: President, Homer L. Montgomery; vice-president, Everett C. Evans; recording secretary, Emil J. Smith; financial secretary, John S. Gunner; membership secretary, Robert C. Beck; and treasurer, Norman A. Pemberton.

In connection with the 39th National Safety Congress and Exposition to be held October 8-12 in Chicago, the **Railroad Section** of the **National Safety Council** will hold its regular annual meeting in three afternoon sessions in the Mural room of the Morrison Hotel on October 9, 10 and 11. Details of the program will be announced at a later date.

The **Associated Traffic Clubs of America** have announced that their 28th annual meeting will be held in Seattle on September 24-26, and that the **Transportation Club of Seattle** will act as host. A detailed announcement regarding the program will be made at a later date.

The annual meeting of the **Railway Tie Association** will be held in the Netherland Plaza Hotel, Cincinnati, on September 26-28, not September 25-27, as stated on page 67 of the June 18 *Railway Age*.

Minneapolis offices of the **Association of American Railroads** and of the **Northwest Shippers Advisory Board** have been moved to the new general office building of the Minneapolis & St. Louis at 111 E. Franklin ave., postal zone 4. There has been no change in telephone numbers of either organization.

The 1952 annual meeting of the **Accounting Division** of the **Association of American Railroads,** originally announced for the Hotel Statler, Detroit, June 23-27, will be held instead at the Book-Cadillac Hotel, Detroit, June 10-13.

EQUIPMENT AND SUPPLIES

Domestic Equipment Orders Reported in June

Domestic orders for 428 diesel-electric locomotive units, 2,775 freight-train cars and 50 passenger-train cars were reported in *Railway Age* in June. Estimated cost of the locomotive units is $73 293,777; of the freight-train cars, $17.650 000; and of the passenger cars, $6,700,000. An accompanying table lists the orders in detail.

During the first half of 1951, *Railway Age* has reported domestic orders for 1,517 diesel-electric locomotive units and six steam locomotives costing an estimated $243,793,777; 57,588 freight-train cars costing an estimated $327,545,000; and 122 passenger-train cars costing an estimated $17,485,000.

C. N. Plans Equipment Buying On Five-Year Basis

Current and anticipated restrictions on steel and other materials in short supply have led the Canadian National to plan its equipment requirements for the next five years, William Benedickson, parliamentary assistant to Canadian Transport Minister Lionel Chevrier, has told the House of Commons at Ottawa.

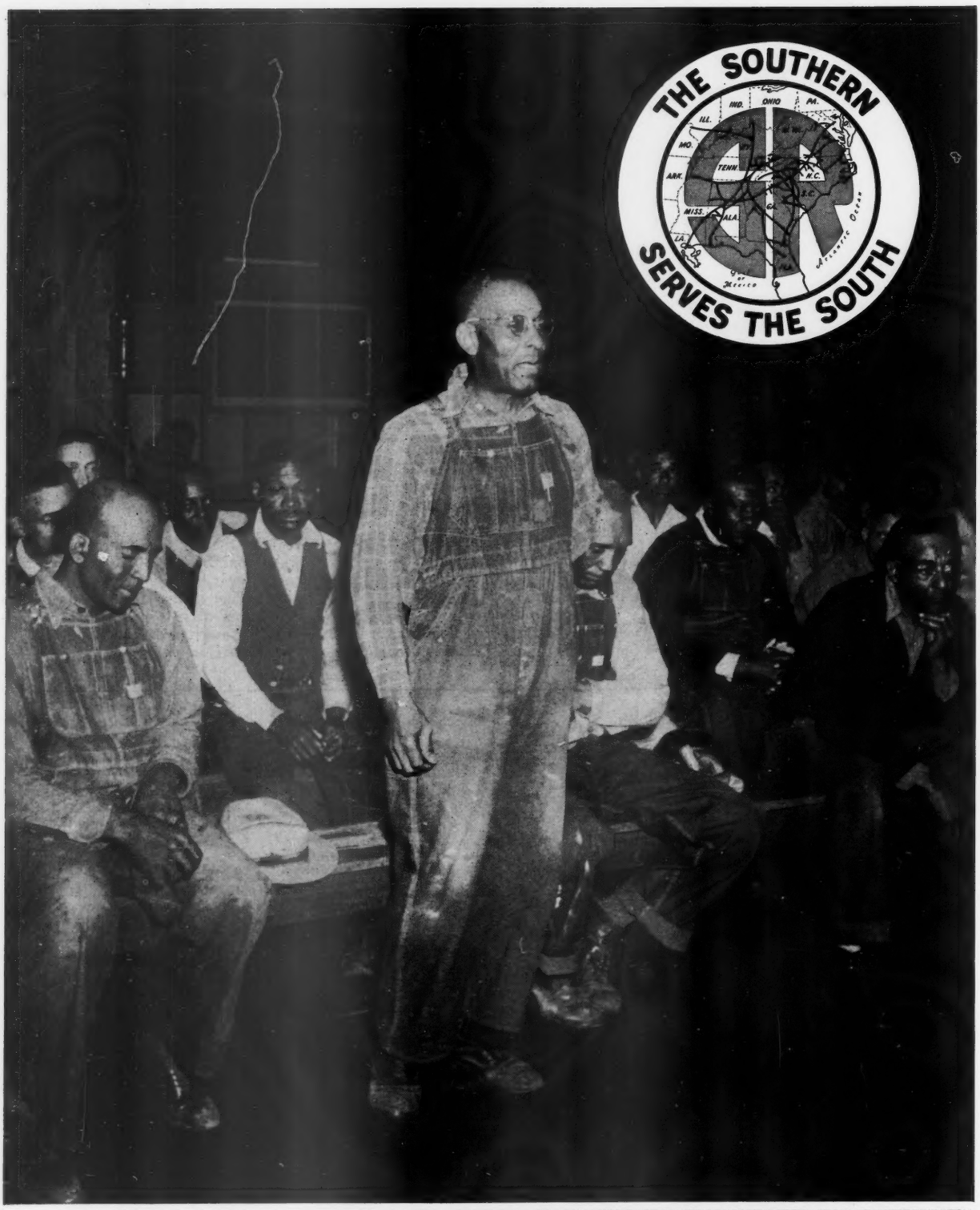
As a result of a study, completed in April, of equipment needs, the company has recommended that normal purchase for the next five years should include 4,360 new freight cars per year. Of this number, 2,500 would offset annual retirements for obsolescence and other causes; the rest are considered necessary to accommodate an estimated 10 per cent in business, at the rate of two per cent a year for the next five years.

Approximately 30 new baggage cars a year will be needed to provide for average annual retirements and to bring this class of equipment to approved passenger train standards.

(Continued on page 78)

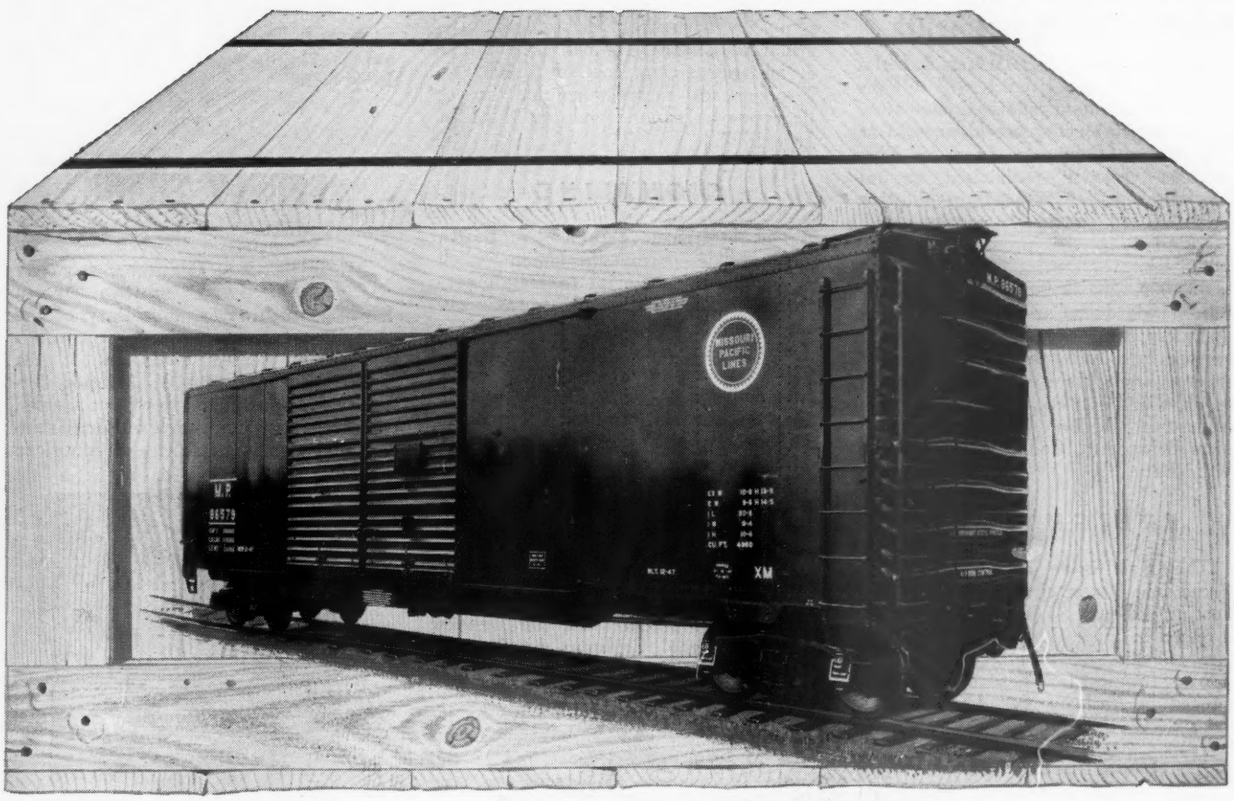
Locomotives

Purchaser	No.	Type	Issue Reported	Builder
B. & O.	18	1,500-hp. "A" Frt.	June 25	Electro-Motive
	9	1,500-hp "B" Frt.	June 25	Electro-Motive
	6	1,600-hp. "A" Frt.	June 25	American-G.E.
	3	1,600-hp. "B" Frt.	June 25	American-G.E.
	2	1,600-hp. "A" Frt.	June 25	Baldwin-Lima-Hamilton
	1	1,600-hp. "B" Frt.	June 25	Baldwin-Lima-Hamilton
	5	1,600-hp. Rd.-Sw.	June 25	Baldwin-Lima-Hamilton
C. M. St. P. & P.	6	3-unit 4,500-hp. Frt.	June 25	Electro-Motive
	6	3-unit 4,500-hp. Pass.	June 25	Electro-Motive
	12	1,500-hp. Rd.-Sw.	June 25	Electro-Motive
	3	1,200-hp. Switching	June 25	Electro-Motive
	10	1,200-hp. Switching	June 25	Fairbanks, Morse
	10	1,000-hp. Switching	June 25	Alco-G.E.
	7	1,200-hp. Switching	June 25	Baldwin-Lima-Hamilton
L. & H. R.	2	1,600-hp. Rd.-Sw.	June 25	Alco-G.E.
N. P.	3	1,200-hp. Switching	June 25	Electro-Motive
	4	1,500-hp. Rd.-Sw.	June 25	Electro-Motive
	1	1,500-hp. "B" Frt.	June 25	Electro-Motive
	2	4-unit 6,000-hp. Frt.	June 25	Electro-Motive
	1	3-unit 4,500-hp. Pass.	June 25	Electro-Motive
	4	1,0000-hp. Switching	June 25	Electro-Motive
P. R. R.	12	2-unit 4,500-hp. Pass.	June 4	Electro-Motive
	10	1,500-hp. Switching	June 4	Electro-Motive
	14	3-unit 4,500-hp. Frt.	June 4	Electro-Motive
	6	2-unit 3,000-hp. Frt.	June 4	Electro-Motive
	14	3-unit 4,800-hp. Frt.	June 4	Baldwin-Lima-Hamilton
	20	1,200-hp. Switching	June 4	Baldwin-Lima-Hamilton
	6	3-unit 4,800-hp. Frt.	June 4	American-G.E.
	40	1,600-hp. Switching	June 4	American-G.E.
	10	1,600-hp. Switching	June 4	Fairbanks, Morse
Rutland	6	1,000-hp. Freight	June 11	American-G.E.
St. L.-S. F.	27	1,500-hp. Gen. Purpose	June 11	Electro-Motive
	10	1,200-hp. Switching	June 11	Electro-Motive
T. & P.	6	1,500-hp. Frt.	June 25	Electro-Motive
	6	1,500-hp. Rd.-Sw.	June 25	Electro-Motive
	8	800-hp. Switching	June 25	Electro-Motive
Freight Cars				
B. & O.	1,000	50-ton Box	June 11	R.R. Shops
D. & R. G. W.	1,000	70-ton Gondola	June 25	General American
N. & W.	100	70-ton Cov. Hop.	June 4	Greenville Steel Car
St. L.-S. F.	100	50-ton Pulpwood	June 25	R.R. Shops
St. L. S. W.	75	50-ton Box	June 4	General American
S. P. & S.	500	Box	June 11	N.P. Shops
Passenger Cars				
U. P.	16	Sleeping	June 18	Amer. Car & Fdy.
	6	Dining	June 18	Amer. Car & Fdy.
	2	Dormit.-Kitch.	June 18	Amer. Car & Fdy.
	14	Coach	June 18	Amer. Car & Fdy.
	10	Baggage	June 18	Amer. Car & Fdy.
	2	R. P. O.	June 18	Amer. Car & Fdy.



SAM ST. MARTIN IS HAVING HIS "SAY": He's a veteran freight handler at one of our freight stations. And he's giving his co-workers some good, down-to-earth tips on how to prevent freight loss and damage. On the Southern, friendly, informal discussions of this sort go on all of the time. And from them comes a steady flow of suggestions and ideas that mean better service for your freight when it moves to, from and within the South via **SOUTHERN RAILWAY SYSTEM.**

a Sure way to Shipping Satisfaction



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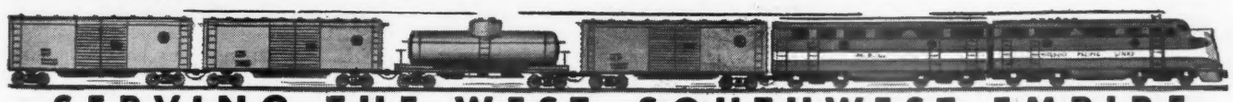


SERVING THE WEST-SOUTHWEST EMPIRE

(Continued from page 75)

No exact prediction was made as to the company's motive power requirements, but it was recommended that orders be placed immediately for 24 diesel road locomotives and 25 diesel switching units, to constitute the 1952 portion of the five-year program.

Explaining that "until firm orders are placed, no steel can be allotted," Mr. Benedickson said orders for some of the contemplated equipment would have to be placed now to insure delivery by next year.

New Haven to Spend $14 Million on Improvements

The New York, New Haven & Hartford plans to spend nearly $14 million for improvements, Frederic C. Dumaine, Jr., its newly elected president, said at New Haven, Conn., on June 26. This includes recently authorized capital expenditures of $7,624,000 in addition to $6,110,746 previously appropriated.

Included in the program are 550 70-ton hopper cars costing about $3,465,000, just ordered from the Pullman-Standard Car Manufacturing Company; and one self-propelled 120-passenger diesel powered rail car, ordered from Mack Trucks, Inc., This coach will be tried out on the road's Naugatuck Valley line, which runs from Bridgeport, Conn., to Winsted via Waterbury.

FREIGHT CARS

The **Baltimore & Ohio** has ordered 500 70-ton covered hopper cars, costing about $3,500,000 from the Greenville Steel Car Company for delivery beginning the third quarter of 1952. Inquiry for these cars was reported in *Railway Age* April 2, page 86.

The **Department of the Army** is in the market for about 400 50-ton box cars.

New York, New Haven & Hartford.—See "New Haven to Spend $14 Million on Improvements," above.

The **Wabash** has ordered 1,000 40-foot, 50-ton box cars from the American Car & Foundry Co. and 300 50-foot, 50-ton box cars from the General American Transportation Corporation. Delivery of the equipment covered in both orders is expected during the second quarter of 1952.

PASSENGER CARS

New York, New Haven & Hartford.—See "New Haven to Spend $14 Million on Improvements," above.

LOCOMOTIVES

The **Baltimore & Ohio** has ordered from the Electro-Motive Division of General Motors Corporation 8 diesel-electric switching locomotives, for delivery beginning in November. Costing about $840,000, they will be used on the Baltimore & Ohio Chicago Terminal.

The **Maine Central** has ordered two diesel-electric locomotive units from the Electro-Motive Division of General Motors at an approximate cost of $265,000. A 1,200-hp. unit is scheduled for delivery in August and a 1,500-hp. unit in October.

The **Richmond, Fredericksburg & Potomac** has ordered three two-unit 4,500-hp. diesel-electric road locomotives from the Electro-Motive Division of General Motors Corporation at an approximate cost of $1,450,000. Two locomotives are scheduled for delivery next January and the third in July 1952.

SIGNALING

The **Atchison, Topeka, & Santa Fe** has ordered from the Union Switch & Signal Co. material to install centralized traffic control on approximately 18 miles of double track between Trinidad, Col., and Lynn, N. M. The 7½-ft. style C. control machine will be installed at Las Vegas, N. M. In addition to the code equipment, the order includes styles H-5 searchlight signals, M-23A electric switch machines, T-21 switch stands, SL-21A electric switch locks, relays, rectifiers, and transformers. Field installation will be handled by railroad forces.

The **Elgin, Joliet & Eastern** has ordered equipment from the General Railway Signal Company for installation of a unit wire relay interlocking at Kirk Yard Junction, Gary, Ind. The control machine will have 35 indication lights and 46 levers for control of 39 switch machines and 13 signals. Included in this order are type B relays and models 5C and 6 switch machines.

The **Richmond, Fredericksburg & Potomac** has ordered from the Union Switch & Signal Co. material to modernize interlocking facilities at its Richmond, Va., terminal. A new style B-30 control machine will be installed; other items include style A-5 electro-pneumatic switch machines, colorlight signals, relays, rectifiers, transformers, switch circuit controllers and housings. Field installation will be handled by railroad forces.

The **Southern** has ordered equipment from the General Railway Signal Company for installation of a coded remote control interlocking at Birmingham. The control machine, to be located in the yard office at Ernest Norris yard, will have 23 indication lights and 17 levers for control of 11 switch machines and 34 signals. Included in this order are type FA and D colorlight signals, model 5D dual-control switch machines, type SC searchlight signals and type K relays.

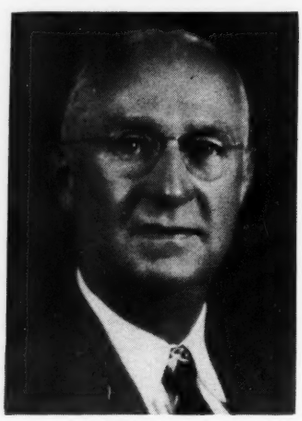
MARINE

The **Erie** has ordered two 1,000-hp. diesel-powered tugboats from Jacobson's Ship Yard, Oyster Bay, N. Y. Scheduled for delivery in the first half of 1952, these vessels will be 95 feet, 5 inches long, with 25-foot 8-inch beam and 13-foot 5-inch depth.

The **Western Maryland** has ordered a 345-foot carfloat from the Shipbuilding division of the Bethlehem Steel Company, at its Key Highway yard, Baltimore. The carfloat will have a 41½-foot beam and a depth of 10½ feet.

SUPPLY TRADE

Maurice N. Trainer, formerly president of the **Dominion Brake Shoe Company,** a subsidiary of the **American Brake Shoe Company,** has been elected chairman of the board, and **Thomas E. Akers,** formerly vice-president, has been elected president. A photograph of Mr. Trainer, who also is president of American



Thomas E. Akers

Brake Shoe, and a sketch of his career, appeared in *Railway Age* September 30, 1950, page 27.

Mr. Akers joined American Brake Shoe in 1902. He advanced through various sales and supervisory jobs, successively, to vice-president of the Ramapo Ajax division, president of the Canadian Ramapo division, and vice-president of Dominion Brake Shoe.

Mark M. Twohig, traffic manager of the **Willard Storage Battery Company** for 36 years, has retired.

S. D. Baumer has been appointed vice-president of the equipment manufacturing division of the **Air Reduction Company.** Mr. Baumer joined

the Airco general technical sales department in 1941 as a steel mill specialist and was appointed assistant manager of that department in 1944 and manager in 1948. **E. H. Roper,** formerly assistant manager of the general technical sales department of Air Reduction Sales Company, a division of Air Reduction Company, has been appointed manager of the department.

L. E. Menns has been appointed Pacific Coast sales manager of the **Bridgeport Brass Company.** Mr. Menns, who has been serving as Los Angeles district manager for Bridgeport, will be in charge of the San Francisco district office and warehouse as well, and will be responsible for sales of all Bridgeport products on the Pacific Coast.

John F. Smith, Jr., general manager of sales of the **Inland Steel Company,** has been granted a leave of absence for six months to serve as chairman of the production directive committee and as assistant director of the iron and steel division of the National Production Authority, in Washington, D. C.

Major W. McKean White, Jr., vice-president of the **White Manufacturing Company,** Elkhart, Ind., has been recalled to military duty. During his absence, his duties will be taken over by his father, **W. McKean White, Sr.**

The **Edgewater Steel Company** has recently made several changes in its organization: **L. M. Forncrook,** formerly secretary, has been elected vice-president with administrative responsibilities; and **H. C. Riddile,** formerly general manager, has been elected vice-president in charge of manufacturing. **B. T. Roe, L. L. Leape, H. H. Solof** and **B. J. Krywick,** formerly vice-presidents of the **Tracy Manufacturing Company,** whose assets were recently acquired by Edgewater, have been elected vice-president in charge of sales of the Tracy division, secretary of the company, assistant to the president, and general manager of the division, respectively.

Robert M. Reindollar, Jr., has been appointed district engineer of the Philadelphia office of the **Portland Cement Association,** to succeed **George C. Britton,** who has retired. Mr. Reindollar joined Portland Cement in 1947 as field engineer in Pennsylvania and served in that capacity until November 1950, when he was appointed assistant to the district engineer, Philadelphia office. Mr. Britton will continue to serve the association on a part-time consulting basis.

OBITUARY

Clarence R. Johnson, 61, district representative for the western sales division of the Caterpillar Tractor Company, died of a heart attack in a Sacramento, Cal., hospital on June 13.

CONSTRUCTION

Chicago, Milwaukee, St. Paul & Pacific.—Directors have authorized expenditure of $3 million to install a car retarder and signal system in the eastbound yard at Milwaukee. The entire yard, known as Air Line classification yard, will be reconstructed for gravity operation. In addition to electro-pneumatic retarders and switches, the yard will be equipped with a radio system to dispatch motive power; a paging and "talk-back" loudspeaker system to direct activities of personnel on the ground; a teletype system; a pneumatic tube system for waybills and other records; a tape or wire recording system to record location and makeup of trains; a pit to permit inspection of running gear of cars; a journal box lubrication system, and floodlighting for night operations. Preliminary work is to be started immediately and the entire project is expected to be completed next year.

Minnesota Transfer.—A three-year program of constructing a new classification yard and associated facilities at St. Paul has begun. For 1951, work to be undertaken will include construction of 11 new tracks; installation of a 72-ft. track scale (originally scheduled for the hump yard); and necessary drainage work. Estimated to cost $190,400, the entire 1951 portion of the program will be undertaken by company forces. Other projects currently under way are revision of trackage in the repair yard to provide working space for mechanical equipment (by company forces at an estimated cost of $54,300); construction of a new office building at the repair yard (concrete-block construction at a cost of about $17,600); construction of a new concrete-block yard office at the hump, with a yard loudspeaker system (combined cost estimated at $35,300); a new yard office at Raymond avenue (also of concrete block construction at a cost of about $36,400), and a diesel locomotive repair shop addition to the present roundhouse, at a cost of $142,000. All of these latter projects are being done by J. S. Sweitzer & Son under contract. All are under way except the locomotive repair shop on which work is awaiting I.C.C. approval.

Southern Pacific.—This road has asked the I.C.C. to approve plans for relocation of its line between Polvo, Ariz., and Vail. The plans contemplate construction by the federal government of a new 14-mile line to replace the present 13.5-mile line which is in the way of a proposed extension of runways at the Air Force's Davis-Monthan base near Tucson. The request for I.C.C. approval was embodied in two joint applications filed by the Southern Pacific Railroad Company and its lessee, Southern Pacific Company. They seek authority to abandon the present line, and to acquire and operate the proposed alternate.

FINANCIAL

Canadian National.—*Refunding, and Expenditure Bills Adopted.*—The Canadian Parliament has passed two bills relating to the financial structure of this company. One bill provides for the refunding of some $200,000,000 of C. N. securities maturing or callable between 1951 and 1955 (*Railway Age*, June 25, page 110); the other authorizes the railroad to make capital expenditures of up to $97,737,000 and to increase working capital by $20,000,000. This bill also would allow the railway to make commitments this year of up to $111,512,920.

Mobile & Birmingham. — *Bond Extension.*—This road has asked the I.C.C. for authority to extend the maturity date of its prior lien 5 per cent bonds and its first mortgage 4 per cent bonds. Both would be extended to March 1, 1998. The prior lien bonds are outstanding in the amount of $600,000, and the first mortgage bonds in the amount of $1,200,000. Each became due July 1, 1945. The M. & B. is operated by the Southern under long-term lease and the latter road holds all but small amounts of the bonds.

Pennsylvania-Reading Seashore. —*Bond Issue.*—Acting upon the road's request, the I.C.C. has dismissed without prejudice its pending application for authority to issue $4,000,000 of first mortgage series A bonds. (*Railway Age*, June 11, page 95.) The dismissal order said the road decided to withdraw its offering of bonds because of "unsettled market conditions." The Pennsylvania and the Reading Company had asked the I.C.C. for authority to assume joint liability for the new P.-R.S. bonds, and this application was also dismissed by the commission.

Seatrain.—*Acquisition of Ocean Steamship Company.*—This company has filed a petition with the I.C.C. asking for temporary authority to acquire the Ocean Steamship Company so that coastwise service between Savannah, Ga., and New York can begin on or about September 11.

"There is not only 'good cause' but abundant cause for authorizing re-

(Continued on page 84)

Another Dam Mouth To Feed

Take a good look at that tunnel mouth in Garrison Dam, North Dakota. The Soo Line has to feed it, *and seven others*, thousands of tons of concrete required for lining. For each of these tunnels is approximately 1,200 feet long and they vary between 22 and 29 feet in diameter.

That's a lot of concrete! *Maybe your concrete!*

Or perhaps you ship turbines or girders; wire or lumber—or any other of the thousands of items required to build this vast dam—210 feet high, 12,000 feet long, 2,600 feet wide at the base.

If you do, ship it Soo. For the Soo Line has a fleet of work-hungry diesel locomotives and a take-anything right-of-way leading straight to Riverdale. (Government Access Railroad from Riverdale Junction.)

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Speedy, dependable overnight service, completely modern equipment (98% Diesel and electric locomotive), latest automatic train consist and car recording system . . . and thoroughly experienced personnel mean that for both passengers and freight, the New Haven delivers year-'round championship performance.

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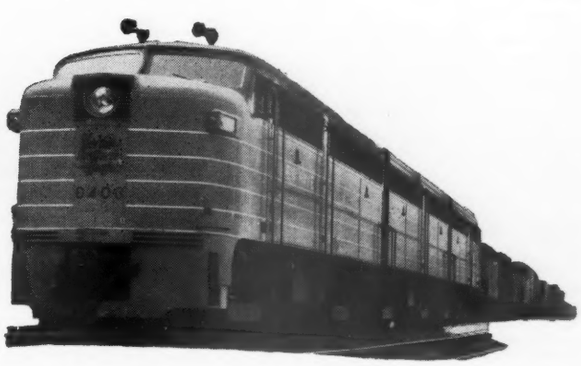

(Continued from page 81)
sumption of this service and no valid reason whatever for denying the early restoration of this service," the Seatrain petition said. It added that the purposes of the Interstate Commerce Act and the national transportation policy will be "clearly served," because the Savannah-New York service will be cheaper for shippers and of a "superior type."

As to rates for the proposed service, the petition said the service "will be inaugurated on the general rate level of Ocean's tariffs and at rates generally below the level of rates maintained by competing carriers." The Ocean company has not operated between New York and Savannah since 1942, and both Eastern and Southern railroads are now opposing Seatrain's proposal to take over the operation. *(Railway Age,* June 18, page 72.)

Southern.—*Leases.*—Division 4 of the I.C.C. has authorized this road to acquire direct control of the Carolina & Northwestern, and has at the same time approved Carolina's proposal to lease the Danville & Western, the High Point, Randleman, Asheboro & Southern, the Yadkin, and the Blue Ridge.

Control of the Carolina has previously been held by the National Investment Company, a Southern subsidiary, and the present acquisition will thus give the Southern direct control of the road. The other four lines also are a part of the Southern system, and their lease by Carolina is expected to simplify accounting and result in tax savings.

As part of this general consolidation, the Danville, the High Point, and the Yadkin will extend the maturity dates of their respective bond issues for the term of the new leases; and the High Point and the Yadkin will reduce the interest rate on their respective issues from 6 per cent to 5 per cent. (*Railway Age,* December 9, 1950, page 66.) Leases on the four roads will be effective as of January 1, 1951, and run to December 31, 2000.

Wisconsin Central.—*Reorganization.*—Division 4 of the I.C.C. has fixed maximum limits of final allowances to the president and counsel of this debtor corporation for services rendered in the reorganization proceeding. The sum of $15,200 was approved for C. T. Jaffray for services rendered as president from October 1, 1945, to March 7, 1951. The sums of $20,000 for compensation and $520.99 for expenses were approved for G. Aron Youngquist as counsel from September 19, 1944, to November 30, 1950.

New Securities

Application has been filed with the I.C.C. by:

NEW YORK, CHICAGO & ST. LOUIS.—To assume liability for $1,950,000 of equipment trust certificates to finance in part acquisition of 343 freight cars, as follows:

	Description and Builder	Estimated Unit Cost
150	70-ton hopper cars (American Car & Foundry Co.)	$6,815.83
50	70-ton covered hopper cars (Greenville Steel Car Company)	9,016.84
143	70-ton flat cars (Greenville)	6,710.04

The application put the total cost of the equipment at about $2,446,452.59. The certificates, dated July 15, would be sold on competitive bids which would fix the interest rate. They would mature over a 15-year period in 30 semiannual installments of $65,000 each, beginning January 15, 1952.

Security Price Averages

	June 26	Previous week	Last year
Average price of 20 representative railway stocks	50.08	52.96	39.93
Average price of 20 representative railway bonds	92.16	92.68	90.15

Dividends Declared

Norfolk Southern.—75¢, quarterly, payable September 15 to holders of record September 1.

ABANDONMENTS

Applications have been filed with the I.C.C. by:

ALABAMA CENTRAL.—To abandon its entire line, about 9.9 miles, from Jasper, Ala., to Marigold. The application said coal operations at Marigold, which furnished the road's principal revenue, have been abandoned.

MAINE CENTRAL.—To abandon approximately 35.9 miles of line from a point near Auburn, Me., to a point near Canton.

SEABOARD AIR LINE.—To abandon 65 miles of its Florida branch lines, including a 33-mile line between Hull Junction and Fort Myers, a 17.2-mile line between Fort Myers and Alva, and a 14.8-mile line between Fort Myers and San Carlos. The application stated that the lines have been operated at a "substantial" loss for several years and that there is no prospect of traffic to make them "self-sustaining." It was also stated that further operation of the lines would require replacement of their bridges and trestles at a cost "in excess of $500,000."

Division 4 of the I.C.C. has **authorized:**

LOUISVILLE & NASHVILLE.—To abandon its branch between Paris, Ky., and Chicle, 12.7 miles. Traffic handled on the line or otherwise available in the area is not sufficient to prevent substantial losses to the road, the I.C.C. report said.

CAR SERVICE

I.C.C. Service Order No. 865, which imposes super-demurrage charges running up to $20 per day, has been modified by two additional amendments—Nos. 10 and 11. The latter set back the order's expiration date from July 15 to October 31. Amendment No. 10 extended for another month (until August 1) the exemption provision applicable to refrigerator cars.

I.C.C. Service Order No. 867, which governs the handling of trap or ferry cars containing l.c.l. freight within a switching district, has been modified by Amendment No. 3, which set back the expiration date from June 30 to November 30.

I.C.C. Service Order No. 868, which is not in effect, having been suspended indefinitely last September, has been modified by Amendment No. 2, which set back the expiration date from June 30 to November 30. The order was designed to suspend the operation of tariff rules which permit freight cars to be used otherwise than subject to the carload minimum weight for each car used.

RAILWAY OFFICERS

EXECUTIVE

Arthur B. Johnson, vice-president in charge of real estate and industrial development of the ERIE at Cleveland, has retired under the pension rules of the company, after 36 years in its land and tax department. Born at West Pittston, Pa., on June 2, 1886, Mr. Johnson received his LL.B. degree from Dickinson College in 1909 and was admitted to the New York state bar in 1910. He entered

Arthur B. Johnson

railroad service on April 26, 1915, as district land and tax agent of the Erie at New York, subsequently serving as land and tax agent and general land and tax agent of the system at Cleveland. Mr. Johnson was appointed vice-president in charge of real estate and industrial development in June 1946.

G. C. Lace, superintendent of the Detroit division of the RAILWAY EXPRESS AGENCY, has been appointed assistant to Vice-President **Walter Reese** at Chicago.

Having completed—to the day—55 years of service with the ILLINOIS CENTRAL, **Joseph L. Sheppard,** assistant vice-president, retired from active duty on July 1. He was succeeded by **Robert A. Trovillion,** who has been general traffic manager since 1945.

Mr. Sheppard was born in Greenville, S. C., in 1881 and first entered I. C. service in 1896 as a messenger in the local freight office at Memphis. He later advanced through various

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Photo by Keystone

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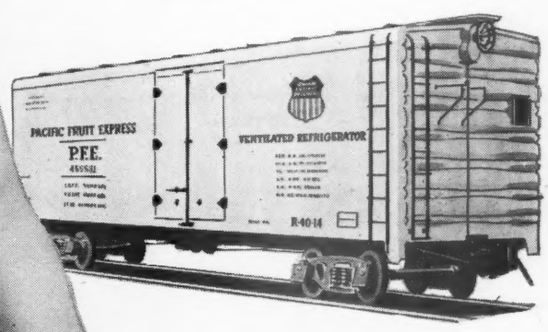

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positions in the commercial office and in the general freight office at that point to become assistant general freight agent in 1913 and general freight agent in 1926. In 1932 he came to Chicago as general freight

Joseph L. Sheppard

agent and in February 1935 went to St. Louis as assistant traffic manager. Returning to Chicago in May 9139, he was promoted to freight traffic manager and in August 1944 was appointed general traffic manager. It was in July of the following year that he was appointed to the post from which he has retired.

Mr. Trovillion, a native of Golconda, Ill., entered the service of the I. C. as a stenographer in the office of the assistant general freight agent at St. Louis in 1906. Following a number of promotions at that point, he was advanced to the general freight office at Chicago in 1916. World War I inter-

Robert A. Trovillion

rupted his railroad career, when he entered military service as a private in the Signal Corps and emerged as a lieutenant in air service. Returning to the I.C. as chief clerk in the general freight office, he subsequently became assistant general freight agent (1921) and general freight agent (1935). In 1939 he was named assistant freight traffic manager and five years later became freight traffic manager. It was in 1945 that he assumed the position of general traffic manager.

Election of **W. H. Hillis** to fill the newly-created post of senior vice-president of the CHICAGO, ROCK ISLAND & PACIFIC has been announced by President J. D. Farrington. At the same time Mr. Farrington announced the election of **Downing B. Jenks** as vice-president in charge of operations. Both men assumed their new posts on July 1.

W. H. Hillis

Mr. Hillis, who has been serving as vice-president, operations, is a native of Colona, Ill. His railroad career began in 1906 at Beardstown, Ill., when he went to work for the Chicago, Burlington & Quincy as a rodman. He subsequently held the position of roadmaster on various divisions; trainmaster, Aurora division; district engineer of maintenance, Galesburg, Ill.; and assistant superintendent of the LaCrosse division and, later, of the Galesburg division. In December 1931 he was appointed superintendent of construction in charge of a 110-mile line between Childress, Tex., and Pampa.

Downing B. Jenks

Upon completion of this project he returned to the post he had held at LaCrosse, Wis., where he remained until July 1936, when he was named engineer, maintenance of way, for the Rock Island. In October 1939 he became assistant chief operating officer, with jurisdiction over the engineering, construction and maintenance departments. On July 1, 1942, Mr. Hillis was appointed operating officer of the entire Rock Island system. It was from this post that he assumed the position of vice-president, operations, on January 5, 1948.

Mr. Jenks, who is 35, is one of the youngest men ever to hold a top-level post with a major American railroad. Born in Portland, Ore., in August 1915, he was graduated from Yale University with a degree of Bachelor of Science in Industrial Engineering in 1937. In the same year he entered railroad service as an assistant on the engineer corps of the Pennsylvania's New York division. Previously, he had done summer vacation work on the Great Northern. From 1938 through 1940 he served successively as roadmaster, division engineer and later trainmaster, first on the Klamath division and subsequently, from 1940 through 1947, as trainmaster on the Kalispell, Spokane, Misabi and Willmar divisions of the G.N. During World War II he rose from first lieutenant to lieutenant colonel in the Military Railway Service in Africa, Italy, France and Germany. Returning to the G.N. as superintendent at Spokane in 1497, he remained there only until October ,1 1938, when he was appointed general manager of the Chicago & Eastern Illinois at Chicago. In May of the following year he was also made a vice-president of the C.&E.I. His resignation from that position to become assistant vice-president of the Rock Island was recorded in *Railway Age*, December 16, 1950, page 68.

FINANCIAL, LEGAL & ACCOUNTING

John L. Reynolds, executive assistant to **William H. Draper, Jr.,** trustee of the LONG ISLAND, has been appointed assistant treasurer of the road at Jamaica, N. Y.

OPERATING

H. F. Newland has been appointed trainmaster of the Wilmington district of the ATLANTIC COAST LINE at Wilmington, N. C.

R. J. H. Wood, chief despatcher of the CANADIAN NATIONAL, has been appointed superintendent transportation, with headquarters as before at Montreal, succeeding **R. A. McQuade,** deceased.

C. D. Knab, superintendent of the Cincinnati division of the RAILWAY EXPRESS AGENCY, has been transferred to the Detroit division, succeeding **G. C. Lace,** who has been appointed assistant to vice-president at Chicago. **L. A. Hardman,** superintendent of organ-

(Continued on page 91)

Here's our Hat
...and Here's our
HURRY!
Katy's bringing a powerful new Diesel fleet Southwest!
More new giant road Diesels to pull longer freights, farther, faster. More Diesel yard switchers to trim your terminal transfer time. Equipment and service improvements all over the system.
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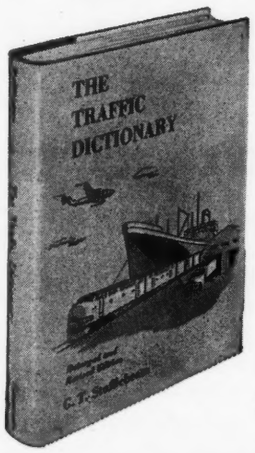

By GEORGE T. STUFFLEBEAM
Manager, Transportation Research, Remington-Rand

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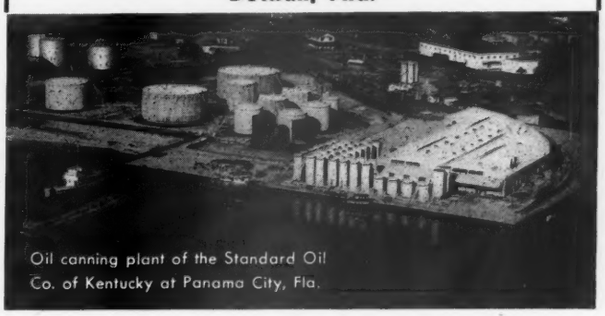

Oil canning plant of the Standard Oil Co. of Kentucky at Panama City, Fla.

(Continued from page 86)

ization at San Francisco, has been appointed superintendent of the Southern Ohio division, succeeding **A. G. Smith,** who has been transferred to the Cincinnati division to replace Mr. Knab.

W. A. Hahnen, general manager of the DES MOINES UNION, has retired from active duty, after having completed 42 years of service with that company.

R. H. Kelley, former general yardmaster of the CANADIAN PACIFIC at Calgary, Alta., has been named night assistant superintendent of Winnipeg terminals, effective June 1.

P. W. Hankinson, trainmaster of the Canada division of the NEW YORK CENTRAL SYSTEM at St. Thomas, Ont., has been appointed superintendent of the TORONTO, HAMILTON & BUFFALO at Hamilton, Ont., effective July 1, succeeding **L. Harrington,** who will retire under pension regulations after 49 years of service. Mr. Harrington was born in Lincoln county, Ont., in 1884 and entered railroad service with the T.H.&B. as agent-operator, subsequently serving as dispatcher, chief

P. W. Hankinson

dispatcher, trainmaster and superintendent.

Mr. Hankinson was born on October 13, 1902, at St. Thomas, Ont., and entered railroad service with the Michigan Central (New York Central System) on August 5, 1917, as callboy, subsequently serving as yard clerk, road brakeman, freight conductor, yardmaster, passenger conductor, and acting trainmaster. He was appointed trainmaster at St. Thomas, on November 1, 1945, which position he held until his recent appointment as superintendent of the T.H.&B. at Hamilton.

Henry M. Babcock, yardmaster of the MICHIGAN CENTRAL (New York Central), has been appointed trainmaster of the Canada division at St. Thomas, Ont., succeeding **Percy W. Hankinson,** who has been appointed superintendent of the Toronto, Hamilton & Buffalo at Hamilton, Ont.

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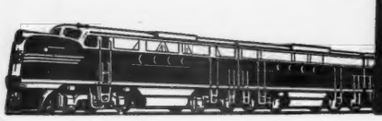

Santa Fe

TRAFFIC

James Gregg Wortham, industrial agent for the MISSOURI-KANSAS-TEXAS, has been assigned to the Fort Worth division, with headquarters at Ft. Worth, Tex.

K. M. Fetterly, assistant freight traffic manager of the Pacific region of the CANADIAN PACIFIC at Vancouver, B. C., has been appointed foreign freight traffic manager at Montreal, succeeding **George C. Dew,** who will retire at the end of June.

Horace E. Hitchings, district passenger agent of the SEABOARD AIR LINE at Miami, has been named to succeed the late **Charles G. Ward** as assistant general passenger agent at Raleigh, N. C. **Ralph L. Progner,** traveling passenger agent at New York, succeeds Mr. Hitchings at Miami.

V. C. Trayser has been appointed general agent of the CENTRAL OF GEORGIA at Chicago.

James J. Galligan, assistant general freight agent of the LEHIGH VALLEY, has been appointed assistant freight traffic manager, with headquarters as before at New York, succeeding **Ira S. Auch,** whose retirement was reported in *Railway Age* June 11. Mr. Galligan entered railroad service with the Pennsylvania at New York and joined the L.V. in 1917 as clerk in the freight traffic department. He later served in various capacities in the tariff bureau until 1936, when he was promoted to chief of divisions bureau, becoming assistant general freight agent in 1943.

The GRAND TRUNK WESTERN has announced appointment of **R. A. Larsen** as general agent at Omaha, of **T. P. McCarthy** as general agent at Grand Rapids, Mich., and of **D. L. Borst** as general agent at Flint. All three men are agents of both the G.T.W. and the CANADIAN NATIONAL in their respective cities.

R. E. Lewis, commercial agent at Birmingham for the TENNESSEE, ALABAMA & GEORGIA, was promoted to general freight agent in charge of sales and service at Chattanooga,, effective June 16. **H. I. Power** has been appointed general freight agent in charge of divisions, to succeed **O. J. Capps,** resigned.

At his own request, **C. B. O'Connor,** assistant general freight agent of the NASHVILLE, CHATTANOOGA & ST. LOUIS, retired effective July 1, after having completed 44 years of service with that company.

Guy D. Taylor, commercial agent of the SOUTHERN SYSTEM at Columbia, S. C., has been appointed district freight agent at Greensboro, N. C., succeeding **W. T. Carpenter, Jr.,** who has been furloughed for military

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service. **Harold M. Sandiford,** commercial agent, has been promoted to district freight agent, with headquarters as before at Augusta, Ga., succeeding **Robert B. Arthur,** who has retired after more than 47 years of service.

As reported in Railway Age June 11, **Charles J. Mundee** has been appointed assistant freight traffic manager of the SEABOARD AIR LINE at Miami. Mr. Mundee was born on March 19, 1899, at Jacksonville, and entered railroad service on February 15, 1916, with the Atlantic Coast Line at Jacksonville in a clerical capacity. He joined the S.A.L. on August 25, 1924, as chief clerk at Tampa, subsequently becoming commercial agent, district freight agent and division freight agent at various points in Florida. On February 16, 1945, Mr. Mundee was appointed assistant general freight agent at Orlando, Fla., transferring to Miami on October 1, 1950.

Guy K. Rossman has been appointed general agent, freight department, of the CHICAGO & NORTH WESTERN and the CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA, at St. Paul. He succeeds the late **J. H. Kinsey.**

O. P. Langford, Jr., traveling freight agent of the CENTRAL OF GEORGIA at New York, has been appointed general agent at Pittsburgh, succeeding **F. S. Inman,** resigned.

PURCHASES & STORES

As reported in *Railway Age* June 11, **G. R. Merryman** has been appointed purchasing agent of the JERSEY CENTRAL LINES and the NEW YORK & LONG BRANCH at New York. A native of Lancashire, England, Mr. Merryman entered railroad service with the Baltimore & Ohio on May 19, 1910. He has been with the Jersey Central since September 1, 1927, serving as general storekeeper for the past three years.

G. R. Merryman

On June 15, **T. E. Martin** was ap-

pointed to the newly-created position of assistant purchasing agent of the ST. LOUIS SOUTHWESTERN, with headquarters at St. Louis. **A. C. Ernst** has been appointed assistant general storekeeper at Pine Bluff, Ark.

V. E. McCoy has been appointed assistant chief purchasing officer of the CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC, with headquarters at Chicago. Mr. McCoy received the degree of Bachelor of Science in Mechanical Engineering from Montana State College and entered the Milwaukee's shops in Minneapolis in 1925 as an apprentice. From 1928 through 1931 he was in charge of power plants as combustion engineer. In 1931 he joined the Bird Archer Company as assistant to the president; in 1936 he became mechanical engineer and treasurer of the Wilson Engineering Corporation, and a short time later was appointed superintendent of the Montana Iron Works. From 1937 through 1948 he served as chief engineer of the National Aluminate Corporation and in September of the latter year was appointed manager of railroad weed control for the same firm. In November 1950 he returned to the Milwaukee as assistant to the vice-president, the position from which he has been promoted.

ENGINEERING AND SIGNALING

Rexford E. Peck, who was recently promoted to bridge engineer of the MISSOURI PACIFIC LINES, at St. Louis (*Railway Age*, May 14), was born on October 5, 1895, at Idalia, Colo., and received his higher education at Highland Park College, Des Moines, Iowa, and the University of Denver. Mr. Peck was employed by Western Union

Rexford E. Peck

Telegraph Company prior to February 1919, when he started his railroad career with the Denver & Rio Grande Western at Denver. Following service in various positions in the valuation and bridge departments on that road, in 1927 he became associated with the firm of Harrington, Howard & Ash at Kansas City, Mo., as bridge designer. In May 1928 Mr. Peck joined the M.P. as assistant engineer on bridge design; in July 1938 he became chief draftsman, bridge department, and in July 1946 he was advanced to assistant bridge engineer, the post he held before his latest promotion.

K. L. Clark, assistant engineer of the CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC, at Chicago, has been promoted to principal assistant engineer, a position that has been vacant since the promotion of **H. B. Christianson** to assistant chief engineer (*Railway Age*, July 29, 1950, page 63). Mr. Clark has been placed in charge of construction of the new pump-retarder yard the Milwaukee is building at Milwaukee, and will have his headquarters at that point until the project is completed.

Charles M. Chumley, engineer, maintenance of way, of the ILLINOIS

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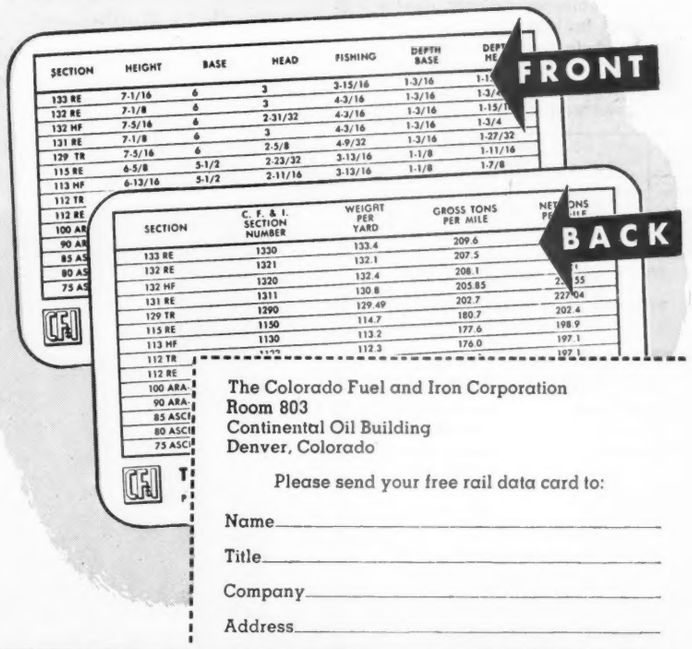

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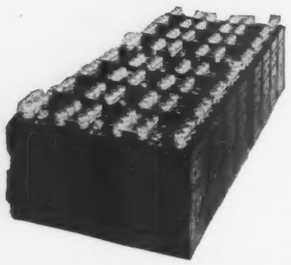

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CENTRAL, retired on June 30, completing 48 years of continuous service with the railroad.

Because of his health, **H. J. Bogardus,** chief engineer of the Pere Marquette district, CHESAPEAKE & OHIO, has requested relief from the full responsibilities of the engineering department. Accordingly, **T. F. Burris,** former assistant chief engineer has been appointed chief engineer to head the department, while Mr. Bogardus has been given the title of special engineer. **D. C. Alexander** has been appointed assistant office engineer. Mr. Burris and Mr. Alexander will both have headquarters in Detroit.

John N. Albertson has been appointed communications engineer of the SOUTHERN PACIFIC LINES IN TEXAS AND LOUISIANA, with headquarters at Houston.

SPECIAL

Dr. William W. Leake, chief surgeon of the ILLINOIS CENTRAL, has retired at his own request as of July 1. He is succeeded by **Dr. Ernest C. Olson,** who, like Dr. Leake, will make his headquarters in Chicago.

Effective June 16, **A. A. DeAyala** was appointed manager of headquarters of the PACIFIC CAR DEMURRAGE BUREAU at San Francisco. He succeeds the late **R. C. Munholland.**

The PULLMAN COMPANY has announced establishment of an employee relations department, effective July 1. **F. J. Boeckelman,** first assistant to the assistant vice-president, has been named manager of the new department. Mr. Boeckelman has been with Pullman since December 1926. He was promoted to the position of first assistant district superintendent at St. Louis in 1942 and to his last-named position at Chicago in March 1950.

F. J. Boeckelman

OBITUARY

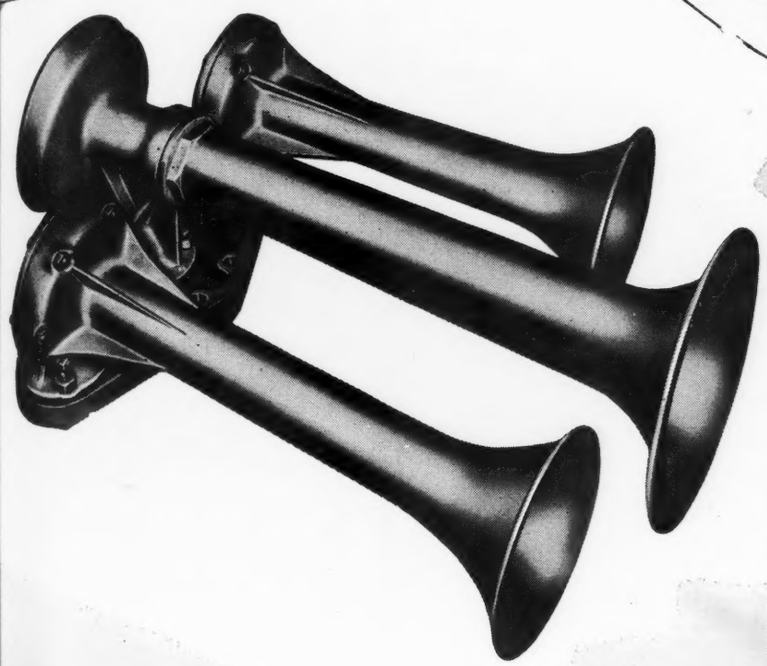
Walter S. Alcumbrac, 55, superintendent of the Madison division of the CHICAGO & NORTH WESTERN, died at St. Mary's hospital, Rochester, Minn., on June 14.

Thomas C. Shortt, chief mechanical officer of the NICKEL PLATE at Cleveland, died at his desk on June 22. Mr. Shortt was born at Crewe, Va., on December 9, 1888, and entered railroad service in April 1906 with the Norfolk & Western at Crewe as apprentice and machinist. He subsequently served with the Atlantic Coast Line, the Norfolk Southern, and the Seaboard Air Line. Mr. Shortt joined the Chesapeake & Ohio in November 1923 as machinist and extra foreman, later serving that road as roundhouse foreman, erecting shop foreman, chief inspector new equipment and supervisor reclamation. In October 1932 he became equipment inspector of the C.&O., the Nickel Plate and the Pere Marquette at Cleveland and was appointed assistant to superintendent motive power of the Nickel Plate in July 1933. He was named master mechanic at Conneaut, Ohio, in December 1937 and became superintendent motive power of the Nickel Plate at Cleveland in June 1942. Mr. Shortt was appointed chief mechanical officer on May 1, 1943.

Thomas C. Shortt

Eric G. Eklund, general superintendent and superintendent of motive power of the RUTLAND at Rutland, Vt., died on June 22, in his 63rd year. Mr. Eklund was born in Sweden on September 17, 1888, and entered railroad service in 1905 as machinist apprentice with the Boston & Maine. He subsequently served as machinist on various southern and western roads until 1911, when he returned to the B&M, as enginehouse and shop foreman. Mr. Eklund joined the Rutland in 1923 as general foreman, which position he held until 1935, when he became superintendent motive power and rolling stock. In February of this year he was appointed general superintendent of all operating matters, retaining his position as superintendent of motive power.

TUNED FOR ATTENTION



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Freight Operating Statistics of Large Steam Railways — Selected

Region	Road	Year	Miles of road operated	Locomotive-Miles: Train-miles	Locomotive-Miles: Principal and helper	Locomotive-Miles: Light	Car-Miles: Loaded (thousands)	Car-Miles: Per cent loaded	Ton-Miles (thousands): Gross excl. locos. & tenders	Ton-Miles (thousands): Net rev. and non-rev.	Road locos. on line: Serviceable: Unstored	Road locos. on line: Serviceable: Stored	Road locos. on line: B.O.	Road locos. on line: Per Cent B.O.
New Eng. Region	Boston & Maine	1951	1,691	290,349	298,637	13,272	11,699	70.3	716,790	295,922	89	5	5	5.1
		1950	1,701	284,075	293,069	14,509	10,993	67.8	691,569	284,369	90	7	11	10.2
	N. Y., N. H. & Htfd.	1951	1,766	324,306	324,616	20,440	12,897	67.6	812,699	341,510	99	..	11	10.0
		1950	1,772	295,527	296,881	36,390	12,168	67.9	745,424	324,210	115	4	19	13.8
Great Lakes Region	Delaware & Hudson	1951	793	271,231	315,234	24,391	12,132	69.9	845,230	451,745	163	26	27	12.5
		1950	794	260,913	315,729	36,392	11,411	68.4	805,828	424,048	144	28	22	11.3
	Del., Lack. & Western	1951	966	295,634	321,785	33,741	13,933	71.9	882,440	400,677	82	2	42	33.3
		1950	965	264,732	287,674	26,774	11,846	69.5	760,472	339,321	79	12	29	24.2
	Erie	1951	2,245	695,540	708,166	36,216	37,833	67.8	2,359,957	977,078	218	16	19	7.5
		1950	2,231	600,135	621,219	50,511	32,590	69.9	2,025,521	865,798	161	28	42	18.2
	Grand Trunk Western	1951	974	295,449	302,388	3,040	11,073	67.1	724,074	315,621	63	..	13	17.1
		1950	971	243,955	253,924	2,619	8,934	67.5	582,481	251,090	60	1	7	10.3
	Lehigh Valley	1951	1,216	257,581	272,662	25,770	13,130	71.0	841,282	389,832	57	2	6	9.2
		1950	1,239	228,824	239,606	24,009	11,310	69.8	747,591	351,402	59	6	35	35.0
	New York Central	1951	10,677	3,320,671	3,516,648	185,130	125,064	63.4	8,747,319	3,941,900	1,041	13	346	24.7
		1950	10,691	3,034,634	3,253,812	225,996	114,074	64.3	8,129,772	3,824,105	1,033	39	372	25.8
	New York, Chic. & St. L.	1951	2,161	901,805	923,027	15,853	34,542	67.3	2,357,177	1,056,868	215	2	35	13.9
		1950	2,162	754,080	782,939	9,150	29,966	66.3	2,091,602	952,036	188	7	70	26.4
	Pitts. & Lake Erie	1951	221	100,603	103,281	267	4,172	68.5	345,405	210,686	29	..	13	31.0
		1950	221	81,007	85,209	70	3,504	74.4	290,248	186,399	33	2	15	30.0
	Wabash	1951	2,381	607,442	612,270	9,571	25,835	71.7	1,591,297	684,507	133	2	78	36.6
		1950	2,381	592,598	601,240	10,066	23,132	69.3	1,442,929	595,504	137	9	60	29.1
Central Eastern Region	Baltimore & Ohio	1951	6,083	1,951,117	2,242,659	234,823	74,928	64.8	5,658,666	2,800,730	683	68	183	19.6
		1950	6,086	1,754,854	2,133,519	246,008	64,074	64.8	4,670,361	2,294,927	689	65	280	27.1
	Central of New Jersey	1951	410	78,184	78,402	3,568	2,987	67.6	216,022	110,441	40	1	8	16.3
		1950	410	68,274	70,029	5,090	2,655	65.1	198,837	103,712	39	..	9	18.8
	Central of Pennsylvania	1951	210	73,213	81,049	14,066	2,859	71.3	201,277	107,302	32	..	16	33.3
		1950	212	67,696	78,771	15,378	2,785	68.5	207,037	114,224	34	..	17	33.3
	Chicago & Eastern Ill.	1951	886	133,743	133,743	3,213	5,752	68.1	375,463	178,423	28	..	1	3.4
		1950	906	130,539	131,069	3,107	4,869	69.2	326,385	159,368	22	..	1	4.3
	Elgin, Joliet & Eastern	1951	238	97,757	99,547	294	3,886	64.4	303,491	162,164	42	..	1	2.3
		1950	238	97,465	98,444	.....	3,516	65.9	273,455	148,704	39	..	1	2.5
	Pennsylvania System	1951	10,045	3,512,772	3,848,827	370,157	148,965	66.3	10,233,570	4,886,929	1,311	..	315	19.4
		1950	10,042	2,991,312	3,284,047	379,752	125,833	67.1	8,660,915	4,174,734	1,200	..	459	27.7
	Reading	1951	1,311	405,603	421,831	31,336	15,737	65.1	1,236,183	669,380	191	3	38	16.4
		1950	1,315	373,439	394,517	38,328	14,384	68.9	1,097,370	611,416	179	7	42	18.4
	Western Maryland	1951	837	207,753	245,867	27,297	7,654	62.6	628,960	346,644	125	9	16	10.7
		1950	837	179,568	222,678	30,382	6,427	65.2	519,348	293,235	151	27	19	9.6
Pocahontas Region	Chesapeake & Ohio	1951	5,042	1,585,706	1,664,986	67,736	67,993	57.9	5,730,178	3,114,678	524	6	237	30.9
		1950	5,044	1,481,436	1,611,842	73,581	62,443	59.5	5,234,682	2,909,318	575	23	150	20.1
	Norfolk & Western	1951	2,113	785,753	834,961	64,274	36,902	60.1	3,213,523	1,754,646	250	18	16	5.6
		1950	2,107	715,803	764,763	59,145	33,632	59.6	2,925,297	1,603,213	264	22	42	12.8
Southern Region	Atlantic Coast Line	1951	5,434	1,016,396	1,024,818	15,101	31,107	62.4	2,169,569	977,352	351	10	91	20.1
		1950	5,508	886,852	897,732	14,734	25,200	62.9	1,741,525	780,447	315	6	79	19.8
	Central of Georgia	1951	1,765	320,722	324,853	5,103	8,943	73.0	577,992	276,342	105	1	10	8.6
		1950	1,783	275,897	284,845	4,927	7,883	71.9	507,241	237,897	102	2	8	7.1
	Gulf, Mobile & Ohio	1951	2,851	340,704	340,704	147	18,147	75.0	1,140,151	550,644	80	..	3	3.6
		1950	2,851	324,232	324,232	290	15,279	73.7	963,280	453,934	61	5	4	5.7
	Illinois Central	1951	6,539	1,660,189	1,668,951	59,063	59,509	64.6	4,238,710	1,971,566	581	..	74	11.3
		1950	6,543	1,503,197	1,507,388	55,771	54,895	63.6	3,999,006	1,876,656	552	2	103	15.7
	Louisville & Nashville	1951	4,769	1,156,911	1,226,702	32,868	36,731	65.4	2,632,083	1,317,640	333	11	109	24.1
		1950	4,769	1,274,001	1,383,805	37,921	36,303	64.2	2,648,545	1,388,094	361	20	84	18.1
	Nash., Chatt. & St. Louis	1951	1,049	225,745	230,579	3,899	7,468	76.4	457,060	220,766	74	..	26	26.0
		1950	1,049	221,615	224,816	5,336	6,813	74.0	426,792	201,553	65	..	3	4.4
	Seaboard Air Line	1951	4,136	826,688	856,727	4,802	29,497	67.1	2,029,699	921,899	261	14	55	16.7
		1950	4,136	745,974	773,373	6,061	24,963	64.2	1,750,705	765,700	281	17	21	6.6
	Southern	1951	6,302	1,376,123	1,385,500	15,135	47,883	71.0	2,984,380	1,359,114	401	7	172	29.7
		1950	6,320	1,284,893	1,295,427	14,940	40,669	67.5	2,622,842	1,167,167	398	46	163	26.9
Northwestern Region	Chicago & North Western	1951	7,920	941,186	959,377	23,487	34,621	70.3	2,316,743	1,107,872	326	6	133	28.6
		1950	8,072	824,013	844,359	22,401	29,401	67.2	1,989,105	867,330	281	43	164	33.6
	Chicago Great Western	1951	1,441	146,209	146,209	6,549	9,252	71.9	594,729	270,652	39	..	..	..
		1950	1,445	166,609	166,898	9,405	9,239	67.8	592,910	253,107	34	..	5	12.8
	Chic., Milw., St. P. & Pac.	1951	10,664	1,313,306	1,362,700	54,666	50,398	68.4	3,331,494	1,530,531	454	43	77	13.4
		1950	10,663	1,219,304	1,278,695	53,700	44,986	67.9	2,987,480	1,357,872	433	55	84	14.7
	Chic., St. P., Minn. & Omaha	1951	1,606	206,350	215,949	12,150	5,813	68.7	390,996	174,256	75	1	23	23.2
		1950	1,606	195,052	203,525	9,804	5,368	68.3	356,820	154,463	63	2	44	40.4
	Duluth, Missabe & Iron Range	1951	565	45,350	46,325	1,102	625	39.0	59,022	23,458	35	9	19	30.2
		1950	562	29,988	30,373	812	419	53.0	31,834	13,896	29	16	9	16.7
	Great Northern	1951	8,220	1,143,591	1,149,176	59,854	40,910	69.1	2,768,381	1,291,427	341	93	61	12.3
		1950	8,221	1,034,203	1,032,901	44,521	35,736	64.7	2,486,575	1,099,323	314	87	55	12.1
	Minneap., St. P. & S. St. M.	1951	4,179	431,732	440,492	6,841	14,007	65.8	932,491	433,480	105	..	16	13.2
		1950	4,179	366,970	373,311	6,427	12,194	70.9	763,922	359,347	115	..	14	10.9
	Northern Pacific	1951	6,591	825,452	858,068	43,899	32,726	73.8	2,186,373	1,046,101	330	12	67	16.4
		1950	6,593	769,290	803,237	49,524	30,183	71.6	2,041,438	968,487	308	34	71	17.2
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1951	13,096	2,845,525	3,027,793	97,591	120,769	66.3	8,018,834	3,162,377	648	78	147	16.8
		1950	13,073	2,188,564	2,287,502	71,027	95,089	69.5	6,111,382	2,478,828	541	249	105	11.7
	Chic., Burl. & Quincy	1951	8,788	1,325,263	1,345,508	54,284	57,172	66.2	3,935,180	1,812,974	397	29	120	22.0
		1950	8,816	1,132,343	1,155,711	44,245	47,191	67.7	3,139,611	1,427,471	376	39	164	28.3
	Chic., Rock I. & Pac.	1951	7,903	1,180,107	1,200,328	20,230	42,686	62.1	2,908,707	1,258,656	256	3	71	21.5
		1950	7,597	1,067,709	1,090,192	16,400	38,621	64.5	2,547,273	1,097,897	225	47	89	24.7
	Denver & R. G. Wn.	1951	2,334	311,915	338,783	41,454	13,946	72.0	930,353	457,860	107	37	22	13.3
		1950	2,413	325,484	353,455	38,905	12,744	71.2	862,082	427,685	113	38	40	20.9
	Southern Pacific	1951	8,054	2,152,491	2,270,436	287,745	99,633	70.3	6,426,366	2,774,569	722	11	135	15.6
		1950	8,067	1,992,638	2,107,296	301,241	82,910	61.8	5,714,569	2,257,092	699	46	192	20.5
	Union Pacific	1951	9,720	2,575,793	2,694,448	198,153	108,316	68.7	7,251,257	3,221,914	601	53	125	16.0
		1950	9,719	1,983,854	2,065,740	143,876	83,961	67.1	5,795,543	2,421,350	503	135	164	20.4
	Western Pacific	1951	1,190	229,391	238,377	31,500	11,963	77.8	736,182	346,520	42	17	34	36.6
		1950	1,192	195,298	199,710	16,003	9,410	77.4	583,591	273,027	41	25	31	32.0
Southwestern Region	International-Gt. Northern**	1951	1,104	214,197	214,700	282	7,399	66.1	540,092	248,433	54	1	7	11.3
		1950	1,110	189,180	189,910	933	6,140	65.0	443,913	196,665	55	3	8	12.1
	Kansas City Southern	1951	886	197,481	198,543	904	10,453	69.0	700,914	327,923	36	9	15	25.0
		1950	886	183,823	185,070	626	8,787	64.6	586,154	252,810	39	4	14	24.6
	Mo.-Kans.-Texas Lines	1951	3,231	451,919	455,804	7,073	17,553	64.5	1,140,317	544,637	81	13	36	27.7
		1950	3,241	409,295	417,293	5,194	14,707	66.1	917,164	390,981	98	..	38	27.9
	Missouri Pacific**	1951	6,942	1,423,968	1,453,049	21,418	52,903	68.0	3,524,814	1,605,635	364	..	57	13.5
		1950	6,951	1,251,234	1,270,745	21,895	47,157	66.9	3,101,595	1,366,195	349	15	48	11.7
	Texas & Pacific	1951	1,844	396,986	396,986	18,665	15,581	63.5	1,085,872	415,575	86	3	1	1.1
		1950	1,844	359,211	359,211	17,021	13,489	62.1	932,421	344,483	67	6	3	3.9
	St. Louis-San Francisco	1951	4,604	736,960	745,395	7,586	26,577	66.9	1,754,989	783,709	196	78	86	23.9
		1950	4,606	697,362	703,842	7,895	23,598	65.2	1,579,749	694,498	204	83	64	18.2
	St. Louis Southw. Lines	1951	1,562	412,710	413,736	5,864	17,621	72.4	1,057,483	472,710	79	8	15	14.7
		1950	1,562	341,984	343,651	5,089	14,687	72.3	867,020	387,570	66	27	13	12.3
	Texas & New Orleans	1951	4,314	885,949	886,363	19,126	31,510	70.8	2,077,752	931,799	223	..	47	17.4
		1950	4,314	852,531	852,531	32,137	25,993	59.3	1,881,314	759,691	208	3	69	24.6

Items for the Month of March 1951 Compared with March 1950

	Region, Road and Year	Freight cars on line: Home	Freight cars on line: Foreign	Freight cars on line: Total	Per Cent B.O.	G.t.m.per train-hr. excl.locos and tenders	G.t.m.per train-mi. excl.locos. and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd. car-mile	Net ton-mi. per car-day	Car-miles per car-day	Net daily ton-mi. per road-mi.	Train-miles per train-hour	Miles per loco. per day
New Eng. Region	Boston & Maine 1951	1,090	8,753	9,843	1.7	39,315	2,472	1,020	25.3	885	49.7	5,645	15.9	108.1
	1950	1,764	9,077	10,841	3.4	38,380	2,438	1,003	25.9	834	47.5	5,393	15.8	98.4
	N. Y., N. H. & Htfd. 1951	1,417	16,047	17,464	1.3	37,609	2,512	1,055	26.5	571	31.9	6,238	15.0	114.2
	1950	1,807	18,264	20,071	1.7	35,824	2,528	1,100	26.6	526	29.1	5,902	14.2	86.9
Great Lakes Region	Delaware & Hudson 1951	2,528	6,325	8,853	4.1	58,860	3,130	1,673	37.2	1,652	63.5	18,376	18.9	53.1
	1950	3,147	7,978	11,125	5.1	50,915	3,101	1,632	37.2	1,340	52.7	17,228	16.5	58.7
	Del., Lack. & Western 1951	4,927	11,638	16,565	7.4	46,254	3,032	1,377	28.8	803	38.9	13,380	15.5	100.3
	1950	6,115	10,326	16,441	10.4	43,628	2,920	1,303	28.6	692	34.7	11,343	15.2	94.6
	Erie 1951	6,157	23,125	29,282	3.8	59,141	3,421	1,417	25.8	1,074	61.4	14,039	17.4	109.4
	1950	10,336	19,025	29,361	7.0	53,859	3,400	1,453	26.6	975	52.6	12,519	16.0	96.6
	Grand Trunk Western 1951	3,286	12,298	15,584	4.8	46,317	2,490	1,086	28.5	657	34.4	10,453	18.9	145.9
	1950	4,262	12,338	16,600	7.5	43,517	2,409	1,039	28.1	549	29.0	8,342	18.2	130.8
	Lehigh Valley 1951	3,833	11,050	14,883	6.2	63,937	3,301	1,530	30.0	843	40.0	10,341	19.6	160.7
	1950	6,284	10,644	16,928	11.3	62,325	3,313	1,557	31.1	687	31.7	9,149	19.1	91.2
	New York Central 1951	50,731	123,549	174,280	4.3	41,985	2,675	1,206	31.5	747	37.4	11,910	15.9	94.5
	1950	70,500	87,277	157,777	8.7	41,581	2,735	1,286	33.5	806	37.4	11,539	15.5	85.9
	New York, Chic. & St. L. 1951	4,911	22,503	27,414	3.4	46,209	2,661	1,193	30.6	1,260	61.2	15,776	17.7	128.4
	1950	7,080	19,187	26,267	4.6	46,019	2,822	1,284	31.8	1,248	59.2	14,205	16.6	102.7
	Pitts. & Lake Erie 1951	3,037	10,705	13,742	10.6	50,564	3,447	2,103	50.5	500	14.4	30,753	14.7	82.4
	1950	5,021	9,543	14,564	19.1	47,975	3,584	2,302	53.2	361	9.1	27,208	13.4	58.4
	Wabash 1951	4,779	13,814	18,593	2.5	54,978	2,663	1,145	26.5	1,069	56.3	9,274	21.0	98.5
	1950	6,907	12,834	19,741	2.9	50,084	2,460	1,015	25.7	1,010	56.6	8,068	20.6	100.8
Central Eastern Region	Baltimore & Ohio 1951	45,225	64,760	109,985	5.1	40,222	2,942	1,456	37.4	853	35.2	14,852	13.9	88.4
	1950	43,812	40,808	84,620	15.4	34,273	2,741	1,347	35.8	847	36.5	12,164	12.9	75.9
	Central of New Jersey 1951	282	9,009	9,291	2.5	37,945	2,903	1,484	37.0	372	14.9	8,689	13.7	88.6
	1950	859	9,246	10,105	8.5	36,198	2,994	1,562	39.1	368	14.5	8,160	12.4	77.9
	Central of Pennsylvania 1951	1,473	3,429	4,902	15.5	41,144	2,980	1,589	37.5	745	27.9	16,483	15.0	76.7
	1950	1,250	3,908	5,158	15.4	43,313	3,269	1,803	41.0	766	27.3	17,380	14.2	72.8
	Chicago & Eastern Ill. 1951	1,734	3,918	5,652	6.6	44,370	2,822	1,341	31.0	990	46.8	6,496	15.8	169.0
	1950	2,217	3,972	6,189	6.8	43,121	2,509	1,225	32.7	817	36.1	5,674	17.2	175.9
	Elgin, Joliet & Eastern 1951	5,760	17,027	22,787	2.1	17,547	3,247	1,735	41.7	232	8.6	21,979	5.7	125.4
	1950	7,573	10,578	18,151	2.1	21,699	2,940	1,599	42.3	279	10.0	20,155	7.7	108.6
	Pennsylvania System 1951	88,735	119,850	208,585	9.4	43,605	3,004	1,434	32.8	745	34.3	15,694	15.0	92.0
	1950	106,485	103,202	209,687	16.6	42,780	3,000	1,446	33.2	651	29.2	13,411	14.8	77.1
	Reading 1951	10,947	20,218	31,165	3.5	38,657	3,049	1,651	42.5	663	23.9	16,471	12.7	75.1
	1950	14,193	17,619	31,812	8.7	35,660	2,943	1,640	42.5	642	21.9	14,999	12.1	70.6
	Western Maryland 1951	4,459	3,993	8,452	2.8	40,712	3,065	1,689	45.3	1,260	44.4	13,360	13.4	62.3
	1950	4,431	3,590	8,021	1.0	38,882	2,984	1,685	45.6	1,029	34.6	11,301	13.4	46.4
Pocahontas Region	Chesapeake & Ohio 1951	48,148	26,445	74,593	5.3	59,778	3,661	1,990	45.8	1,415	53.3	19,927	16.5	77.5
	1950	47,488	25,864	73,352	7.1	56,466	3,584	1,992	46.6	1,158	41.8	18,606	16.0	78.9
	Norfolk & Western 1951	29,425	8,991	38,416	3.1	67,362	4,156	2,269	47.5	1,524	53.3	26,787	16.5	110.1
	1950	26,435	7,120	33,555	2.6	63,332	4,167	2,284	47.7	1,235	43.5	24,545	15.5	87.3
Southern Region	Atlantic Coast Line 1951	10,701	20,285	30,986	2.3	33,718	2,149	968	31.4	952	48.6	5,802	15.8	81.9
	1950	13,952	16,521	30,473	5.1	30,725	1,971	883	31.0	832	42.7	4,571	15.6	79.6
	Central of Georgia 1951	1,768	7,006	8,774	3.0	31,324	1,810	865	30.9	1,033	45.8	5,051	17.4	99.4
	1950	3,144	5,765	8,909	8.6	32,075	1,843	864	30.2	868	40.0	4,304	17.4	90.1
	Gulf, Mobile & Ohio. 1951	2,804	10,785	13,589	2.5	63,688	3,356	1,621	30.3	1,291	56.8	6,230	19.0	141.5
	1950	3,916	10,090	14,006	2.9	59,407	2,981	1,405	29.7	1,055	48.2	5,136	20.0	159.0
	Illinois Central 1951	21,273	37,870	59,143	1.8	44,125	2,581	1,201	33.1	1,130	52.8	9,726	17.3	90.7
	1950	21,735	29,434	51,169	1.8	44,856	2,692	1,263	34.2	1,141	52.5	9,252	16.9	82.6
	Louisville & Nashville 1951	31,883	18,793	50,676	7.4	35,552	2,283	1,143	35.9	892	38.0	8,913	15.6	97.3
	1950	32,315	15,159	47,474	10.6	32,269	2,086	1,093	38.2	878	35.8	9,389	15.5	103.1
	Nash., Chatt. & St. Louis 1951	1,060	5,257	6,317	2.3	39,960	2,026	979	29.6	1,144	50.6	6,789	19.7	87.8
	1950	2,610	5,212	7,822	10.0	37,441	1,935	914	29.6	851	38.9	6,198	19.4	120.1
	Seaboard Air Line 1951	8,414	16,740	25,154	2.0	43,801	2,510	1,140	31.3	1,176	56.1	7,190	17.8	96.6
	1950	10,954	14,974	25,928	2.3	39,887	2,405	1,052	30.7	988	50.2	5,972	17.0	91.8
	Southern 1951	13,080	30,024	43,104	3.3	35,760	2,187	996	28.4	1,013	50.3	6,957	16.5	83.5
	1950	17,701	28,621	46,322	3.9	34,674	2,062	918	28.7	809	41.8	5,957	17.0	73.3
Northwestern Region	Chicago & North Western 1951	14,905	37,472	52,377	3.2	38,556	2,584	1,236	32.0	663	29.5	4,512	15.7	76.3
	1950	20,161	34,607	54,768	2.9	38,140	2,512	1,095	29.5	534	26.9	3,466	15.8	63.4
	Chicago Great Western 1951	947	7,217	8,164	2.3	65,176	4,084	1,859	29.3	1,079	51.3	6,059	16.0	139.4
	1950	1,566	5,571	7,137	2.9	63,542	3,567	1,523	27.4	1,145	61.6	5,650	17.9	141.0
	Chic., Milw., St. P. & Pac. 1951	22,523	42,939	65,462	2.0	39,963	2,554	1,173	30.4	736	35.4	4,630	15.8	85.8
	1950	29,146	33,481	62,627	2.4	37,713	2,479	1,127	30.2	698	34.0	4,108	15.4	80.4
	Chic., St. P., Minn. & Omaha 1951	945	9,276	10,221	1.9	24,604	1,964	875	30.0	564	27.4	3,500	13.0	81.3
	1950	1,068	8,152	9,220	2.2	25,226	1,891	819	28.8	563	28.6	3,103	13.8	69.7
	Duluth, Missabe & Iron Range 1951	13,075	1,220	14,295	1.9	19,667	1,457	579	37.5	65	4.4	1,339	15.1	29.5
	1950	14,699	408	15,107	2.3	15,544	1,144	499	33.2	30	1.7	798	14.6	21.6
	Great Northern 1951	15,081	23,439	38,520	3.3	39,214	2,436	1,137	31.6	1,190	54.6	5,068	16.2	83.5
	1950	24,089	18,974	43,063	3.0	39,695	2,418	1,069	30.8	788	39.6	4,314	16.5	82.6
	Minneap., St. P. & S. St. M. 1951	4,836	12,579	17,415	6.2	38,058	2,190	1,018	30.9	853	41.9	3,346	17.6	130.6
	1950	6,310	7,796	14,106	5.9	37,274	2,097	987	29.5	814	39.0	2,774	17.9	109.1
	Northern Pacific 1951	13,907	17,262	31,169	4.8	45,644	2,671	1,278	32.0	1,146	48.6	5,120	17.2	77.4
	1950	17,939	12,866	30,805	7.2	45,469	2,680	1,271	32.1	985	42.9	4,739	17.1	72.3
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.) 1951	40,341	39,538	79,879	3.8	59,092	2,629	1,116	26.2	1,350	77.8	7,790	21.0	121.2
	1950	44,375	25,299	69,674	5.0	57,210	2,804	1,137	26.1	1,134	62.6	6,117	20.5	90.7
	Chic., Burl. & Quincy 1951	14,796	27,857	42,653	2.4	55,117	2,983	1,374	31.7	1,319	62.8	6,655	18.6	87.1
	1950	16,820	25,055	41,875	4.2	52,315	2,784	1,266	30.2	1,120	54.7	5,223	18.9	70.4
	Chic., Rock I. & Pac. 1951	9,010	25,729	34,739	2.8	43,906	2,478	1,072	29.5	1,190	65.0	5,138	17.8	125.2
	1950	11,354	24,689	36,043	4.5	43,526	2,393	1,032	28.4	998	54.4	4,662	18.2	105.1
	Denver & R. G. Wn. 1951	7,380	5,651	13,031	3.5	52,595	2,997	1,475	32.8	1,105	46.8	6,328	17.6	78.8
	1950	9,202	6,222	15,424	4.9	44,460	2,664	1,322	33.6	899	37.6	5,717	16.8	69.0
	Southern Pacific 1951	22,961	43,208	66,169	2.7	50,852	3,020	1,304	27.8	1,399	71.5	11,113	17.0	100.4
	1950	28,165	43,774	71,939	3.5	49,843	2,906	1,148	27.2	1,069	63.6	9,026	17.4	88.5
	Union Pacific 1951	24,098	38,864	62,962	2.1	62,548	2,862	1,272	29.7	1,714	83.9	10,693	22.2	123.2
	1950	26,141	31,025	57,166	3.4	65,107	2,953	1,234	28.8	1,382	71.4	8,037	22.3	91.5
	Western Pacific 1951	1,476	4,320	5,796	7.7	72,005	3,224	1,518	29.0	2,136	94.8	9,393	22.4	95.3
	1950	1,886	2,792	4,678	15.0	67,280	2,999	1,403	29.0	1,841	82.0	7,389	22.5	75.9
Southwestern Region	International-Gt. Northern** 1951	825	6,991	7,816	1.7	49,197	2,548	1,172	33.6	1,037	46.7	7,259	19.5	115.5
	1950	1,065	6,847	7,912	2.0	47,095	2,368	1,049	32.0	794	38.2	5,715	20.1	106.9
	Kansas City Southern 1951	969	6,642	7,611	3.4	67,253	3,597	1,683	31.4	1,452	67.1	11,939	18.9	117.0
	1950	1,347	5,812	7,159	4.8	62,973	3,219	1,388	28.8	1,169	62.9	9,204	19.7	114.2
	Mo.-Kans.-Texas Lines 1951	2,484	7,684	10,168	4.4	49,052	2,530	1,209	31.0	1,732	86.6	5,438	19.4	118.8
	1950	3,816	8,369	12,185	4.5	42,979	2,250	959	26.6	1,031	58.7	3,891	19.2	106.7
	Missouri Pacific** 1951	13,969	20,057	34,026	2.2	50,554	2,492	1,135	30.4	1,516	73.5	7,461	20.4	121.3
	1950	18,887	18,817	37,704	2.1	48,902	2,490	1,097	29.0	1,176	60.6	6,340	19.7	106.3
	Texas & Pacific 1951	2,120	7,828	9,948	6.1	58,598	2,745	1,050	26.7	1,316	77.7	7,270	21.4	159.6
	1950	2,247	6,464	8,711	5.7	54,858	2,598	960	25.5	1,220	76.9	6,026	21.1	170.3
	St. Louis-San Francisco 1951	6,467	16,029	22,496	3.0	42,448	2,387	1,066	29.5	1,145	58.0	5,491	17.8	74.5
	1950	9,558	13,426	22,984	3.2	39,257	2,272	999	29.4	963	50.1	4,864	17.3	72.8
	St. Louis Southw. Lines 1951	1,417	5,456	6,873	2.0	50,983	2,567	1,147	26.8	2,156	110.9	9,762	19.9	140.2
	1950	1,516	4,848	6,364	1.8	51,728	2,539	1,135	26.4	2,059	107.9	8,004	20.4	114.5
	Texas & New Orleans 1951	3,036	17,143	20,179	2.8	45,435	2,369	1,063	29.6	1,379	65.9	6,968	19.4	112.3
	1950	5,084	15,767	20,851	4.3	42,775	2,229	900	29.2	1,123	64.8	5,681	19.4	108.2

**Report of trustee or trustees.
Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

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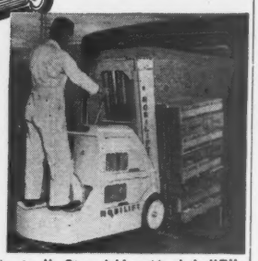

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Current Publications

BOOK

Four Main Lines, by Hamilton Ellis. 225 pages, illustrations. George Allen and Unwin, Ltd., London, England. Available in this country from the Macmillan Company, 60 Fifth ave., New York 11. $3.75.

Under nationalization the British railways have now become British Railways. Yet, under the new uniformity, certain things remain individual. Great main lines like the East Coast, the West Coast, the Great Western and the South Western keep certain characteristics. It is of these four main lines, three of them the oldest to serve London, that the present book treats, in a series of biographical sketches, from the days when trains were rope-hauled from Euston to Camden, when the Great Western was built on the broad gage, when the South Western saw a great future for the muddy little port of Southampton, and when Kings Cross was the latest and finest railway station in London. The illustrations cover nearly a century of photography and include eight of the author's paintings of trains.

TRADE PUBLICATIONS

Permacrete Precast-Concrete Railroad Products. 52 pages, illustrations. Permacrete Products Corporation, 1839 South Wall st., Columbus 7, Ohio.

A catalog describing, with illustrations and specifications, the Permacrete line of reinforced precast-concrete products for railroad use, including crossing slabs, Tri-Crib units for retaining-wall construction, fence and right-of-way posts, Corflor units for roof and floor construction, battery boxes, signal foundations, monolithic foundations, sectional concrete buildings, and others. The catalog also gives the basic principles of Permacrete design and manufacture, and installation instructions.

Operator's Handbook. 32 pages, illustrations. Caterpillar Tractor Company, Peoria, Ill.

Printed in comic-book style, this booklet is designed to make operation of Caterpillar earthmoving equipment easy to understand. It contains information on operation of bulldozers, scrapers, rippers, and cable controls, and material on high-speed hauling and use of grade stakes. It also explains when to use bulldozers, how to pioneer side-hill cuts, push loading, rock and tree removal, softfill work, "do's and dont's" of proper tractor adjustment and operation, and other earthmoving applications. The cartoon illustrations clearly show operators how to obtain the best performance.

Nordberg DSL Yard Cleaner. Bulletin 189. Four pages, illustrations. Nordberg Manufacturing Company, Milwaukee 7, Wis.

Describes design features and operation of Nordberg's new yard-cleaning machine—a self-propelled on-track unit incorporating a high-speed impeller and waste conveyor for removing debris from tracks and loading it into cars.

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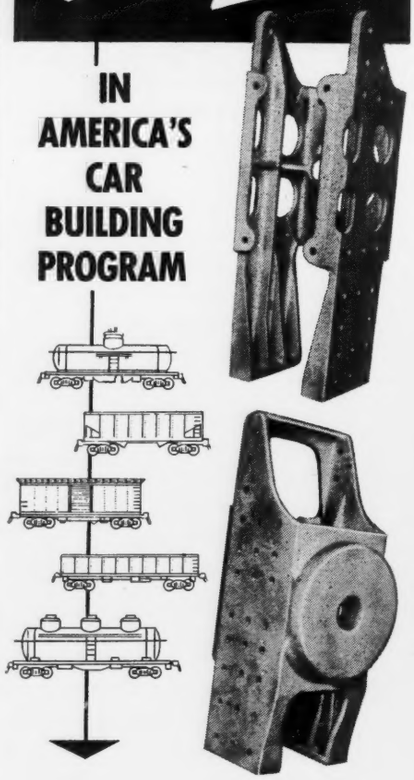

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